Dussmann
TECHNICAL SOLUTIONS

STS

HSEQ Minimum Requirements

MISSION ZERO

Prepared by: Paul Kelleher
Approved by: Tim Thornton

Doc Ref: HSEQ MIN. REQ.
Revision: 1.0

HSEQ Minimum Requirements
Effective Date: 25/11/2024

CONTENTS

1 INTRODUCTION

This document, HSEQ Minimum Requirements, specifies STS health, safety, environmental & quality (HSEQ) requirements for managing works on the construction projects.

The objective of this document is to communicate HSEQ related requirements and arrangements that apply to all contractor organisations, their employees and sub-contractors while carrying out any form of construction activity on STS projects.

This document takes account of best practice in managing HSEQ on construction projects and specifies the standard that STS expects all construction projects to provide for and comply at all times on-site. Any deviations from this standard are to be approved by the STS Construction Manager (CM) Team subject to a documented risk assessment.

This document is applicable to STS employees and all contractors, vendors and suppliers regardless of contractual arrangements i.e. regardless of counter-party STS or customer.

The STS Construction Management Team (CMT) is also responsible for ensuring that the HSEQ requirements outlined in this document are applied on-site and in accordance with local and regional regulatory requirements specific to the project.

This document must be read in conjunction with the project specific Construction Health, Safety, Environmental & Quality Plans.

Contractors shall confirm acceptance of the STS Minimum HSEQ Requirements by signing and returning to the STS site CM THE **'Undertaking' in Section 19** of this document.

Contractors are responsible for communicating the requirements set out in this document to all personnel, Sub-Contractors and lower tier subcontractors. Contractors shall provide the STS CM with evidence of pre-start health and safety kick-off communication meetings with all Sub-Contractors. Contractors shall also provide a signed **'Undertaking', Section 19,** to the STS CM completed by all Sub-Contractors.

2 LEGISLATION REQUIREMENTS

All parties subject to the requirements of this document are to conform to the legal duties and responsibilities as specified within the legislation of the jurisdiction (state, region or country) wherein construction shall be undertaken and within this document or any amendment to same or any associated Project Specific Procedures, Standards and Codes of Practice. In the case of conflict or contradiction, the most stringent requirement is to apply.

These requirements do not relieve contractors or their employees of their legal or contractual obligations. Nothing in this document shall be considered to supersede the legislative requirements of the jurisdiction (state, region or country) wherein construction shall be undertaken.

3 CONSTRUCTION HSEQ REQUIREMENTS

This document communicates the STS requirements and arrangements to the contractor management and supervisory staff who are required to ensure that the requirements, rules, standards, and procedures are brought to the notice of all the contractor's employees including sub- contractors, and that such requirements, standards and procedures are adhered to.

If there is any doubt or misunderstanding regarding the requirements detailed in this document, the contractor is to consult with the STS Site Construction Manager for clarification. Where the contractor requires special precautions or more detailed guidance, they are to discuss with and seek clarification from the Construction Manager, prior to commencement of work.

4 CONTRACTOR'S OBLIGATIONS

All contractors who are awarded and sign contracts are contractually bound to comply with the project's Minimum HSEQ Requirements, as outlined in this document.

In order to comply with the requirements, set out in this document, Contractors, in summary, are to:

- Ensure that satisfactory risk assessments, method statements and/or operational procedures are in place for the planned work scope.
- Ensure that work is adequately planned, managed and supervised.
- Apply all health and safety requirements and supervision to their sub-contractors.
- Ensure that their personnel, including lower tier sub-contractor personnel, have received adequate health and safety training, information and instruction in advance of commencing and during any aspect of their planned work.
- Make available and use best available technical machinery, plant, equipment and tools and follow the safest possible work methods to ensure the maximum protection of workers from injury and ill health.
- Put in place collective protective arrangements to mitigate the risks arising from the work tasks with specific emphasis on risks with potential for serious injury such as falling from heights.
- Ensure that all equipment, plant, machinery, and apparatus brought onto or used on the project is safe and without risk to health, safety, or to the environment and is maintained to an acceptable standard. All necessary test and examination certificates are to be always available on the project site for inspection.
- Ensure all work on-site is formally permitted through the site Permit to Work system with a designated responsible person in charge and effective means of communication available to summon emergency services, if required. A responsible person may be defined as a direct employee of the contractor who is qualified by appropriate and relevant training and experience to supervise the work.
- Subject all portable electrical equipment to a full inspection periodically by a competent trained person. These inspections are to be recorded and records made available for inspection by the Construction Manager. Notwithstanding such periodic inspections, all equipment shall be visually inspected before any use to ensure that there is no visible damage.
- Demonstrate a formal process for consequence management, which is to include the elements of coaching, re-training, formal verbal and written warnings and where appropriate a procedure for dismissal for gross health and safety violations of site safety rules or procedures.
- Demonstrate their commitment to health and safety leadership by committing to site visits by Senior Management and by participating in accident and incident investigations.
- The Construction Safety, Health & Environmental Plan prepared by the Construction Manager and this document shall be issued to, reviewed and the undertakings within this document signed by the Contractor's Site Manager and a copy of the signed undertaking shall be returned to the Construction Manager before commencing work.
- Ensure that all contractor supervisors receive project-specific training in project site safety procedures, safety requirements and the contents of this document and associated documents. The contractor's health and safety advisor is to provide evidence of completion of this training to the Construction Manager when completed.
- Provide a company director or designate (approved by the Construction Manager) to attend a Director's Safety Leadership Team (SLT) meeting as per the agreed timeframes which is to

focus on current project safety performances / trends and challenges ahead. Contractor management are required to lead the development and implementation of safety improvement initiatives relating to the project.

- Comply with any reasonable written or verbal instructions given by the Construction Manager in respect of Health and Safety requirements, arrangements or related risk control measures.
- Ensure all contractor employees are competent in their assigned position and are fit for work under the anticipated conditions. This shall be by interview, references from previous employers and medical assessment testing as required.
- Cooperate with the Construction Manager Site Inspection and Audit Schedule and are required to operate their own inspection and auditing system in addition to the Construction Manager requirements.

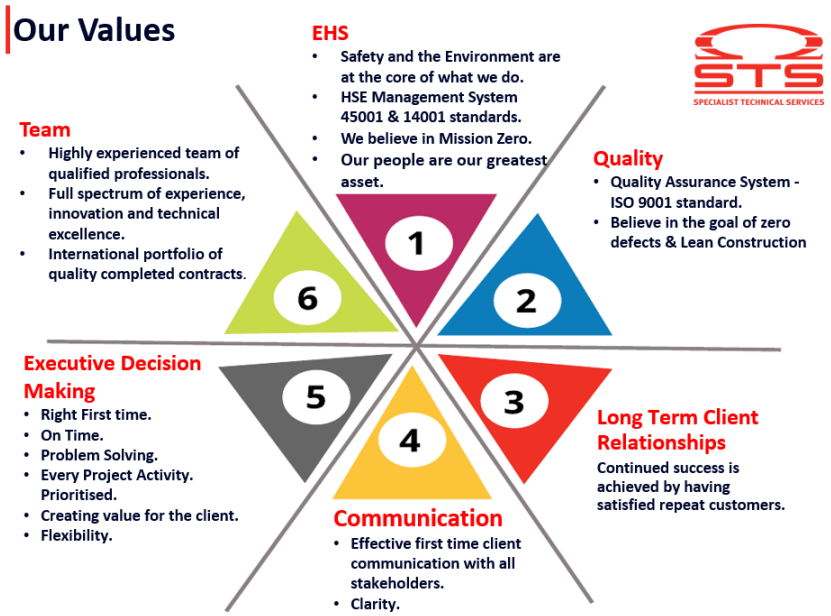
5 HSEQ STRATEGY

5.1 HSEQ VALUES & KEY PRINCIPLES

The contractor is to ensure that an exemplary standard of environmental, health, safety & quality performance is a core goal throughout the project and reflected in its site practices. STS HSEQ strategy is founded on our core values and key principles:

- Management commitment and leadership
- The establishment and maintenance of a positive open health and safety culture
- The application of health and safety planning, execution and performance management tools
- The selection and on-going development of competent resources

Core Values



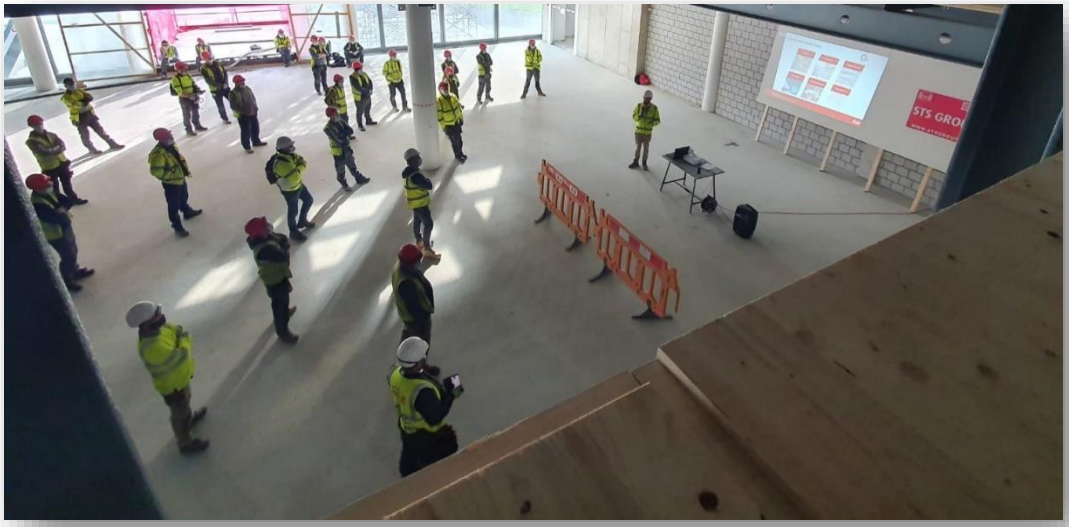
5.2 MANAGEMENT COMMITMENT AND LEADERSHIP

STS recognises that project success is dependent on a well-informed, actively involved, and visible management team who set the project 'tone' in relation to health and safety standards at project inception stage.

STS's construction health and safety management system clearly specify the actions to be taken by the project organisation and the tools and systems to be deployed during each project phase.

The following leadership and commitment is expected by all Contractor and CMT Management and Supervision:

- Being actively engaged and well informed about HSEQ related issues and challenges
- Leading by example
- Maintaining focus on HSEQ performance standards
- Establishing line management accountability.



Example of Company Directors addressing workforce on Health & Safety issues in a Town Hall Meeting

5.3 RECOGNITION AND REWARD

STS acknowledges that recognition and reward of employees can support the promotion of health and safety awareness within the workplace. A project specific safety incentive programme will be implemented with an emphasis on team performance recognition. The company and contractors will be expected to apply an internal recognition and reward scheme and to contribute to the site scheme also.

Example of Safety Lead presenting a Safety Recognition Award

5.4 HEALTH AND SAFETY CULTURE

STS employs the "Mission Zero" behavioural safety programme on its construction projects. The program includes a variety of behavioural safety workshops that helps to engrain a positive safety culture on-site. The company and contractors shall support the Mission Zero programme and attend the workshops as outlined in a project specific Mission Zero Implementation Plan issued by the STS Construction Manager.

STS Mission Zero Safety Initiative: Mission zero is a safety-based programme with very simple goals that strives towards the following:

- Zero Injuries to our people, contractors & visitors
- Zero tolerance of unsafe behaviour & acts
- Zero compromise on safety
- Zero impact for our families, clients, communities & environment
- Zero defects in our work

To underpin and support Mission Zero STS have developed 12 life rules based around our most common high risk activities and related hazards.
The STS life rules are used in all STS operations. Every worker is required to learn all 12, to use them every day so they become second nature, and to make them a regular part of our safety dialogue.
The STS life rules were developed to help everyone go home safely. They are the basic rules that everyone should know and live by.
They promote incident prevention by encouraging people to use their stop work authority whenever they see something being done wrong.
The STS life rule are intended to be used in all of STS business operations.
These rules apply to everyone working for, and on behalf of, STS.
They are based on systematic processes for identifying, assessing and managing risks.
Our life rules are of the key components for identifying and managing the hazards in our business.

It is STS policy to establish and maintain a supportive project health and safety culture. This represents a core element of the STS construction health and safety strategy. The company and contractors shall establish a set of norms early in the project that reflect the messages the project team wishes to convey to the entire workforce. These norms include:

- Respectful 2-way communication style
- Prompt, open and honest reporting of Near Miss events, incidents or injuries
- Exemplary standard of construction site set-up, signage, layout and welfare facilities
- Level of discipline
- Housekeeping and site cleanliness standards

The STS CM Team is to engage with contractors and other stakeholder groups to ensure there is a clear understanding of the project HSEQ rules and goals when establishing the project health and safety culture. The company and contractors are to comply with the HSEQ rules and goals to ensure safety performance is maintained to the highest standards.

5.5 CONSTRUCTION HEALTH, SAFETY & ENVIRONMENTAL PLAN

The STS CM & HSE shall develop and issue to all Contractors a project specific Construction Health, Safety & Environmental Plan where deemed necessary during the handover meeting to the construction team. Where a project is of such a small nature that it doesn't warrant a specific plan, then the site specific method statement, risk assessments and this HSEQ minimum requirements document along with the company SOPs will be deemed as adequate.

The project specific HSE Plan shall:

- Document the project HSE strategy taking account of the above components.
- Take into account the project specific Preliminary Safety and Health Plan, particular risks identified and residual risks requiring control measures.
- Define a set of project EHS goals. From project inception, a high standard of HSE performance is a core goal. STS is committed to the concept that all incidents and injuries are preventable; therefore, the elimination of such incidents is a central theme in the plan.

6 SPECIFIC REQUIREMENTS FOR PLANNING & EXECUTION OF CONSTRUCTION PROJECTS

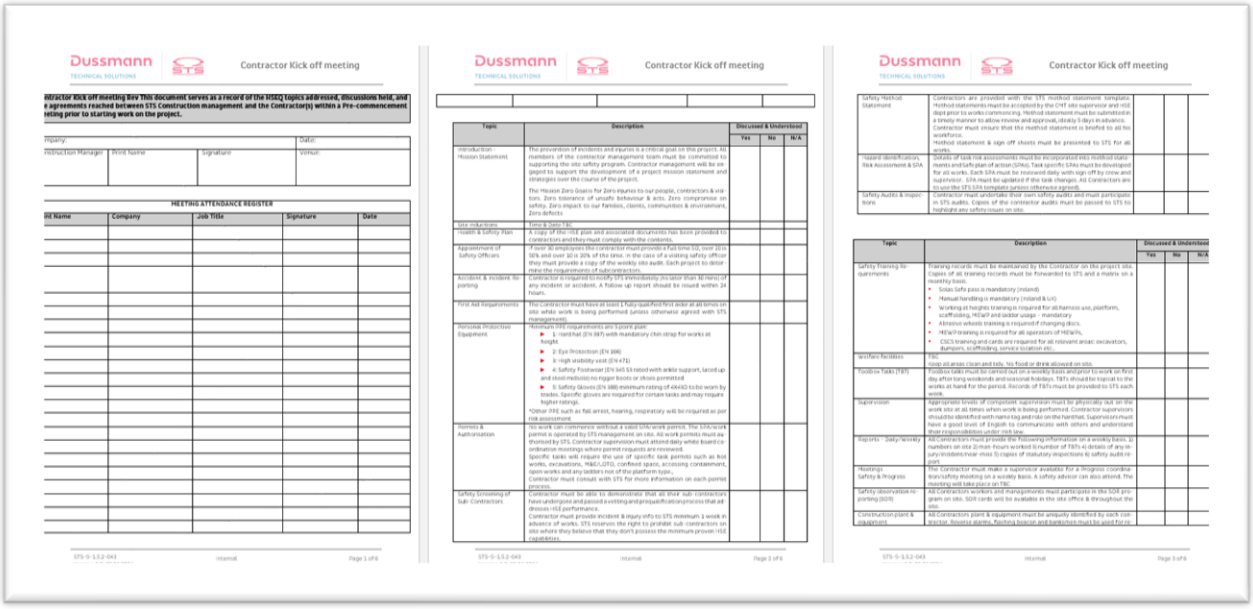
This section describes a number of specific requirements for managing health and safety, which shall be considered and implemented as required by the STS CM during the planning and execution stages of the project and documented in the project specific Construction HSE Plan.

6.1 CONTRACTOR PRE-QUALIFICATION AND APPROVAL

All contractors are to undergo a pre-qualification assessment of their competence to perform the work, environmental, health, safety & quality capabilities, attitudes and past HSEQ performance using an appropriate pre-qualification process. Only experienced, competent contractor organisations who demonstrate an excellent HSEQ record, robust HSEQ management systems and an unwavering commitment to HSEQ will be approved.

Contractors are to ensure appropriate insurance in place and employ trained competent personnel to carry out their work safely. Contractor's equipment shall be certified where appropriate and inspected and maintained in good working order.

Prior to Contractor mobilisation on-site, the STS CM Team shall hold a Construction HSE Kick-Off Meeting with the appointed Contractors site management team (Project Manager; Site Manager; HSE Manager; Company Director) to ensure all HSEQ requirements are fully understood.


Dussmann Contractor Kick off meeting

Dussmann Contractor Kick off meeting

Dussmann Contractor Kick off meeting

Example of a Pre-Mobilisation Construction Safety Kick-Off Meeting

Contractors shall ensure a robust system is in place for the pre-qualification of their lower tier sub-contractors. The Contractors pre-qualification of sub-contractors shall include an extensive health, safety and environmental assessment similar to that applied by STS to main contractors. Upon request, Contractors shall provide evidence of all sub-contractor prequalification's to the STS Construction Manager.

6.2 HEALTH AND SAFETY DOCUMENTATION

Before commencing work on-site, the contractor shall issue the following documents to the Construction Manager in electronic format:

- A copy of the Contractor Health and Safety Programme Manual, or equivalent
- A copy of the Contractor's Health and Safety Statement or Policy, or equivalent dependant on which country the project is being carried out in.
- The Contractor Project Organisation Chart, including CV of dedicated project-specific HSEQ Personnel.

6.3 Construction Health and Safety Advisor / Co-ordinator

The contractor is to appoint a suitably qualified and competent Health and Safety Advisor to support the conduct of its operations. The CV of Health and Safety Managers/Advisors proposed by Contractors shall be issued to the Construction Manager & Safety Advisor for review and acceptance.

The contractor Health and Safety Advisor is to liaise with the Construction Manager & HSE to ensure all necessary health and safety precautions are adhered to by all workers. This does not remove the responsibility of all contractor site supervision and management levels to ensure that their operations are carried out in a safe manner. It is an expectation that Contractors Site Supervisors will lead health and safety management of their works with support, guidance and advice from their site Health and Safety Management/Advisor. Where due to the specific nature or scale of construction activities additional health and safety expertise is required, the contractor is to arrange provision of such additional internal or external resources as required.

6.4 Contractor Designed Works

Designs are to be coordinated with the Permanent Works Designer and be in accordance with the relevant national standards and legislation.

Contractors shall ensure that temporary design works certificates are completed for temporary works requiring design and gain PSDP approval (as per local regulatory requirements or at the instruction of the STS CM). Contractors shall ensure that all precautions are taken and actively check that works on-site are completed in accordance with the approved temporary works design.

7 SITE SET-UP

7.1 ACCESS TO CONSTRUCTION SITE AND SECURITY

The STS CM shall ensure the perimeter of the site shall be clearly visible and identifiable with appropriate signage. Safe access to and egress from the site shall be provided, maintained and sign-posted. The provision of appropriate security barriers and fencing shall be used to prevent unauthorised entry and control access to the site. Appropriate measures to authorise and record personnel accessing the site such as swipe access badges or security sign-in shall be implemented. Appropriate security arrangements such as security personnel, CCTV coverage and security monitoring points are to be provided, as appropriate.

Example of site entrance signage and fencing standard

7.2 SITE NOTICES AND SAFETY SIGNS

The contractor is to comply with all official notices on the site issued by the STS Construction Manager. The contractor is to obtain permission from the STS Construction Manager before erecting any notices or signs.

Contractors are to maintain on site an adequate stock of free-standing warning signs which shall be placed so that hazards created by the contractor's works are clearly notified to all site personnel. The colour and format of the safety signs is to comply with the applicable internationally recognised standards e.g. EN ISO.

Example of STS Safety Signage

7.3 LIGHTING

Adequate general lighting (both artificial and natural) shall be provided to allow personnel to safely access/egress the site, carry out works safely and ensure adequate visibility of personnel and planton the site.

All temporary electrical lighting supplies must be designed by a competent person and installed as per the approved design. The design shall have more than sufficient capacity for the application.

All temporary power panels for lighting shall be fitted with appropriate covers and protection toavoid accidental impact or damage.

The following minimum temporary lighting levels are required (also refer to local and national standards):

- General lighting on pedestrian walkways and access routes (Min 50 Lux)
- Internal general work areas (Min 100 Lux)

Contractors shall ensure that lighting levels are assessed as part of pre-task planning and included in the task, Safe Plan of Action (SPA).

Where increased lighting levels are required to safely carry out specific activities, supplementary task-lighting shall be provided by the contractor.

7.4 Construction Site Logistics

The STS CM will develop and issue a Site Logistics Plan or provide the site logistics plan if STS are a tier subcontractor. Contractors are required to control levels of their construction materials on site. The project is to adopt a Just in Time (JIT) delivery policy where advance notification and approval of deliveries is required. The accumulation of plant and materials (including waste materials) within the site boundaries is to not be allowed to restrict or obstruct pedestrian access, machine access and emergency escape routes. All plant and materials shall be stored within clearly defined storage and set-down areas.

7.5 Traffic Management

A Traffic Management Plan including a detailed project site map shall be prepared and maintained by the STS CM that highlights vehicular/plant and pedestrian traffic routes. Where STS are a tier contractor we will provide the clients relevant plans.

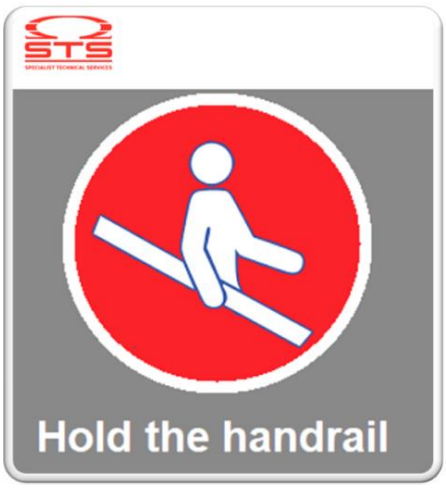
Pedestrians and vehicles / mobile machinery are to be segregated with hard barriers to the greatest degree possible. Directional signage shall be installed to direct personnel along safe access and egress routes.

Example of pedestrian walkway and signage standard

A one-way traffic system shall be employed where possible. Designated site speed limits are to be adhered to at all times. Appropriate car-parking facilities, delivery, material set-down and turning areas are to be determined and provided as part of the traffic management plan. An appropriately identified and established area for refuelling of vehicles shall be provided.

Contractors shall ensure that a trained banksman/spotter is present to assist all reversing/manoeuvring vehicles on-site.

To avoid risk of slip, trip, fall when using stairs, all site personnel must hold the handrail when walking up and down stairways on-site and in compound/office areas.



Example of safety sign warning to use the handrail

7.6 First Aid, Firefighting and Emergency Response

The contractor is to provide and maintain for all personnel on site an adequate supply of first aid materials and is to comply with the provisions of the applicable National Health and Safety Regulations and / or any associated Code of Practice in this regard.

Appropriate first aid equipment and facilities, including first aid kits and first aid room(s), shall be provided appropriate to the nature and scale of the construction project. Trained First Aid Providers are to be registered with the Construction Manager and have affixed to their safety helmet a sticker bearing a prominent white cross on a green background. Site medics will be provided where required by regulations.

All First Aid cases are to be notified to the Construction Manager as soon as they occur, and the injured person is to not be removed from the site without the Construction Manager being notified.

A record of all First Aid treatments and accidents shall be kept by the Construction Manager and Contractor, using STS Accident Investigation form (HS 03) as appropriate or clients form if STS is a tier contractor.

Appropriate means to detect and respond to emergency situations (e.g. fires) shall be provided.

A means of raising the alarm in an emergency, together with designated evacuation/escape routes and assembly point(s) shall be provided.

An adequate number of trained emergency response personnel (e.g. fire wardens) shall be provided, appropriate to the nature and scale of construction.

Appropriate emergency response equipment including fire-fighting equipment, spill kits and personal protective equipment (PPE) is to also be provided, appropriate to the nature and scale of construction.

Example of Spill Kit Material

Contractors shall provide an emergency spill kit in all large construction site plant e.g. Excavators; Teleporters; Cranes etc.

The STS CM shall ensure a sufficient provision of defibrillators are located on-site. Contractors shall provide an appropriate stock of basic first-aid equipment.

8 PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIREMENTS

The contractor is to ensure that their employees and sub-contractors are provided with all necessary personal protective equipment (PPE).

The minimum PPE to be worn for construction activities and by all construction site personnel and visitors accessing STS construction project sites is:

- Hard hat (incorporating a chinstrap), showing contractor's logo to the front and employee's name printed at the front and back.
- High-visibility reflective vest and / jacket (incorporating clearly visible main contractor's name or Logo on the reverse):
  - Yellow for general site employees
  - Yellow and Blue for Site Management
  - Orange for Banksman
  - Yellow/Red for Covid19 Officers or Fire safety

- Safety Boots, ankle support, lace up and S3 rated (not shoes or rigger boots)
- Gloves suitable for the task
- Safety Glasses
- Hearing Protection as required

The contractor is to ensure PPE is properly maintained in good condition and replaced at no charge when defective, lost or damaged.

The contractor is to make their delivery personnel aware of and ensure compliance with the PPE standards on exiting their vehicle. Graphical signs are to be posted at entrance points and throughout the project site to reinforce the required PPE standard to the project workforce.

8.1 PPE Mandatory Standards

A. Safety Helmets

Safety helmets are to meet BS EN 397 and be fitted with a chin strap. The chinstrap shall be used at all times on-site whilst carrying out works at height. All safety helmets must be fitted with chin straps.

All safety helmets shall have an identification label applied to the front to clearly identify the employing contractor and display a site induction sticker which will be provided after site induction training.

The wearing of hoodies, baseball hats or woolly hats under safety helmets can restrict an individual's peripheral vision and are prohibited. Contractors shall provide full head and face comforter suitable for hard hats for cold weather working where appropriate.

Example of Safety Helmet fitted with Chinstrap

Full head & face comforter

B. Gloves

Gloves are to be worn at all times by all personnel on-site. Gloves shall have a minimum mechanical protection rating of 4343 (BS EN 388) and shall be provided to and worn by all construction contractor employees unless otherwise advised by the Construction Manager.

General purpose gloves and welders gauntlets are to be to BS EN 388 standards. They are to have canvas backs and leather hide palms. Rubber, vinyl or nitrile coated gloves issued to contractor employees using hazardous substances is to meet BS EN 374 standards. The type of glove, appropriate to the substance being handled shall be detailed exactly in the work Method Statement, a copy of which shall be given to the Construction Manager.

Anti-cut gloves (resistance level 5) are to be worn when handling "sharp edges" or metal parts.

All contractors are to carry out a glove risk assessment to ensure operatives are supplied with gloves that provide adequate protection relevant to the risk associated with the task.

C. Hi-visibility Vests or Coats

Hi-visibility vests or coats are to meet the requirement of BS EN 471. Special exceptions may apply whilst carrying out welding and grinding activities.

D. Eye Protection

General eye protection in the form of safety spectacles shall be worn by all persons at all times on site. General eye protection is to meet the requirement of BS EN 166, 167 or 168 and is to be fitted with side shields. No shaded lenses are to be worn in areas of limited light, on night shift, or within a building.

Reading Glasses are not accepted as eye protection on STS sites. Contractors must provide their staff with Prescription Safety Glasses or Visitor Glasses (to be worn on top of reading glasses) to ensure maximum eye protection.

Example of Prescription Safety Glasses

Example of Visitor Glasses

'Goggles' shall be used by workers where there is risk of eye injury e.g. dust entering eye when working above head e.g. lifting a ceiling tile, drilling overhead etc.

Example: Saturn eye protection

E. Hearing Protection

Hearing protection is to consist of disposable ear plugs, ear inserts plugs or ear muffs which meet the requirement of BS EN 352. Attenuation characteristics are to be sufficient to reduce noise levels to below 80 dB (A).

F. Safety Boots

Safety boots shall have ankle, midsole and toe protection and conform to BS EN 20345, BS EN 20346 and S3 safety specification. Rigger type safety boots or safety shoes are not permitted. Anti-static safety footwear may be required on certain projects with explosive atmospheres.

G. Task Specific PPE

The requirement for additional task or area specific PPE (e.g. arc flash equipment) shall be determined by the contractors on the basis of an approved risk assessment.

All task specific PPE is to meet the applicable national standards. Task specific PPE to be worn shall be detailed in the Work Method Statement or task risk assessment, which shall be endorsed by the Construction Manager.

Example of task specific PPE – Arc Flash Flame Resistant PPE

9 WELFARE FACILITIES

All contractors are to ensure that high quality, sufficiently sized and maintained welfare facilities are provided on-site for the use of their employees. Contractor cabins (offices; dry-rooms; canteens etc.) shall be uniform in colour Welfare facilities provided shall be in compliance with National legislation and industry best practice.

Toilet Facilities

Common toilet facilities will be provided by the STS or Client if STS is a tier contractor. Toilet facilities must be respected at all times.

Water

The STS Construction Manager will, as far as practical, provide access to a supply of cold potable water for drinking near to the work area. Drinking water standards is to as a minimum adhere to those described in "Guidelines for Drinking Water Quality, Fourth Edition – World Health Organisation: 2011".

Canteen / Eatery Facilities

Canteen/eatery facilities are to be provided by each contractor for the use of their site personnel (or otherwise instruction by the STS CM). Food consumption is only permitted within the designated areas. This is to have a facility for seating and food consumption. Facilities provided by the contractor are to be in line with national and local regulations. The Construction Manager will advise if an on-site common canteen will be provided.

Smoking

Smoking and vaping is to only be permitted in a designated area inside the construction compound area unless client dictates otherwise. No smoking shall be permitted in any other areas of the construction site. The location of the smoking area shall be subject to change depending on the nature of the work being performed and the risk of fire.

10 GENERAL RESTRICTIONS

Intoxicants, Alcohol and Drugs

No employee shall be permitted to enter the site under the influence of intoxicating liquor or drugs. All personnel are to accept the right of the STS Construction Manager to refuse admittance to or remove them from the site if they are believed to be under the influence of intoxicating liquor or drugs. The possession or consumption of any drugs, other than for medicinal purposes, or any alcoholic liquor on the site is strictly prohibited.

Contractors shall have an implement an Alcohol and Drugs Policy for the project.

Use of Mobile Phones on Site

There will be restrictions on the use of mobile phones on-site. Specific mobile phone point locations will be communicated to all site personnel. These are the only locations where personnel will be authorised to use a mobile phone. A Talk-Don't Walk policy will be implemented at these locations.

Additional site rules for mobile phones will be communicated at induction training and must be complied with.

Conduct

Contractors are to ensure that all persons under their control conduct themselves in a safe, orderly, and seemly manner whilst engaged on the project and is to not indulge in any inappropriate behaviour. Failure to comply may result in disciplinary action. Contractors shall implement a company disciplinary procedure and communicate to the STS CM, disciplinary actions taken in relation to site HSE.

11 Training and Competency

11.1 Competent Resources and Certification of Competency

In order to achieve excellence in HSEQ performance, focus shall be given to the assessment and selection of appropriately skilled and committed personnel.

Contractor personnel including sub-contractors are to be required to be in possession of relevant up-to-date local/national/regional training certification relevant and applicable to their job function. Evidence of holding the relevant certification shall be requested prior to permitting access to the construction site, and a record of that certification shall be maintained by the Construction Manager.

11.2 Construction Project Site Induction and On-Boarding Training

The following site induction and orientation steps are required prior to a new person starting work on-site:

1. STS Site H&S Induction
2. Site Security Access Badging
3. Contractor company H&S Induction and on-boarding company training
4. Contractor issuing of required PPE
5. Site walk familiarisation with new workers by each Contractor
6. Contractor assessment of buddy-system requirements based on new worker's competency and experience.
7. RAMS and SPA review and sign-off completion.

The contractor is to ensure that each of his employees and those of his sub-contractors attend the Project Health and Safety Induction training course organised by the STS Construction Manager. Inductions are to be on defined days to suit project requirements and the commencement time shall be communicated by the Construction Manager. Workers who do not attend on time for the beginning of such training (late comers) will not be accommodated.

The induction and orientation training will communicate the key project HSEQ requirements including the requirements of the Construction HSE Plan, as well as information on site specific hazards and associated control measures which are to be complied with.

The Site Induction shall be comprised of the standard STS Corporate Health & Safety Induction supplemented by relevant site-specific rules and information.

Sections of the Construction Safety Induction Presentation

The induction and orientation training shall also communicate expectations regarding individual personal behaviour on site.

- Following induction, attendees will receive a project site Identification Badge and/or Project Induction Label (a sticker that can be applied to the safety helmet).
- All site personnel are required to be in possession of their Site Identification Badge and display their Project Induction helmet sticker at all times on site.
- Visitors who have not been inducted are to not be allowed onto the construction site unaccompanied.

The contractor shall, before work commences, provide the STS Construction H&S Manager with the following digital copies, for every employee intended to work on site:

a) Copy of Worker Site Access Application Form HS 39

b) Copy of photographic identification

c) Copies of certification of training, skills and competency

The initial site induction and orientation training shall be further complemented by a series of on-going health and safety briefings and communications throughout the course of the construction project. Refresher briefings shall be delivered at key project milestones, when there are significant changes in project site arrangements or when the CM Team considers it necessary to reinforce health and safety related messages to construction site personnel.

12 COMMUNICATION AND CONSULTATION

Contractors are to ensure the necessary arrangements are put in place for adequate and effective communication and consultation on health and safety requirements for the duration of the construction project. Examples of appropriate communication and consultation mechanisms which may be utilised include the following:

12.1 TOOLBOX TALKS AND BRIEFINGS

Face-to-face toolbox talks and briefings with construction site personnel allow for regular reinforcement of site health and safety rules, communication of any changes in site arrangements, and as a preview of planned work activities. The briefings also serve as an opportunity to receive feedback from the site personnel. Toolbox talks/briefings are typically delivered by the contractor directly to their construction site employees. Contractors are to cascade any HSEQ communications issued by the Construction Manager to construction site personnel as required.

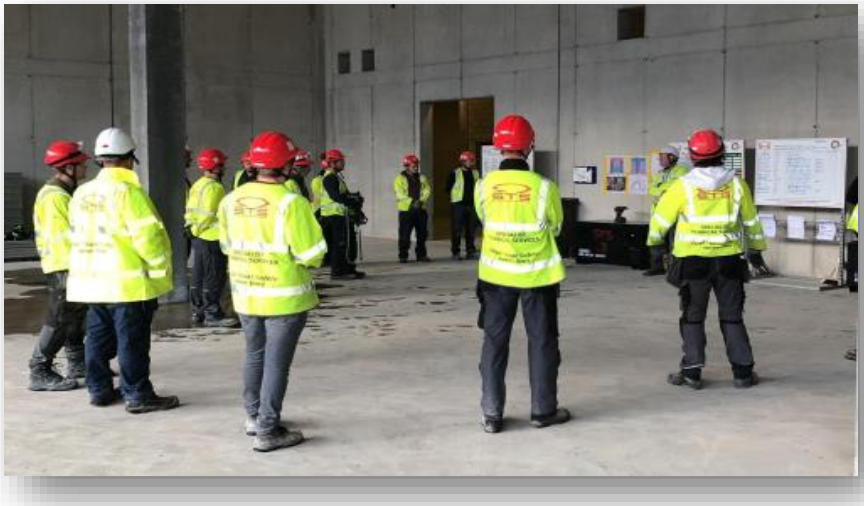
Contractors shall utilise various techniques for communicating Toolbox Talks including on-site demonstrations, safety related videos and exercises. Good practice would state that a TBT should last approximately 15 minutes.

Example of a Toolbox Talk briefing held on-site

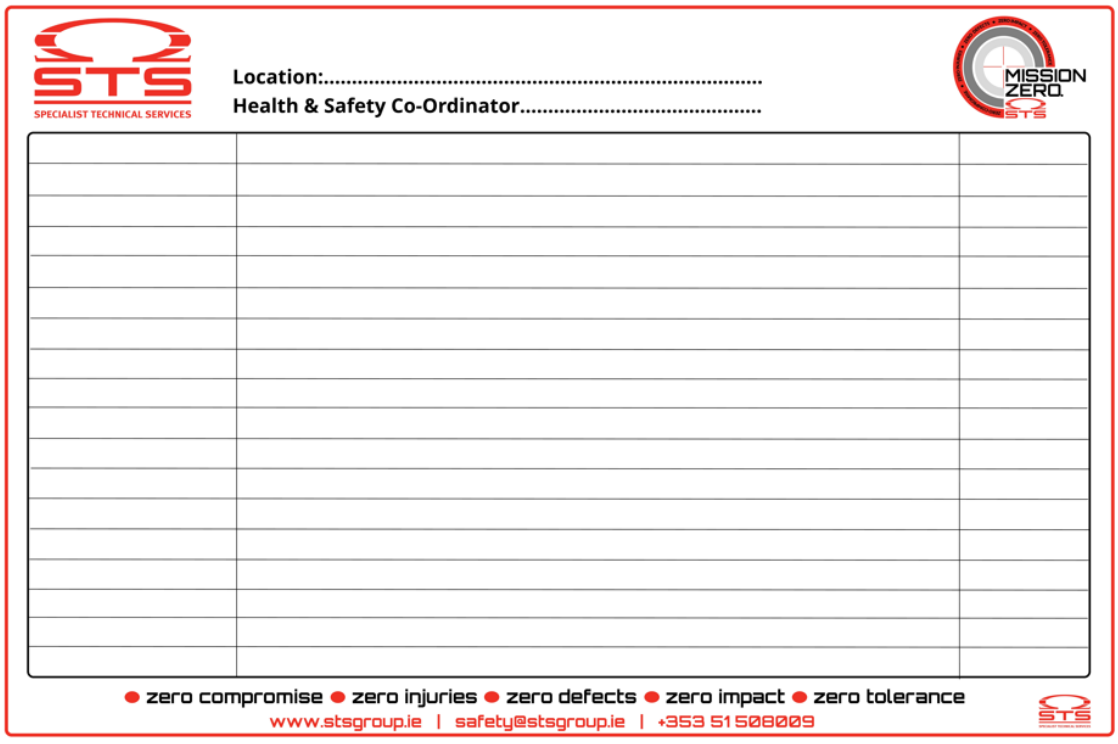
12.2 WHITEBOARD MEETINGS

These daily meetings are typically held early in the morning and led by a member of the CM Team with responsibility for an area and / or scope of work. They are to be attended by a foreman/supervisor and safety advisor from the relevant contractor/subcontractor companies. The meeting is a forum to preview the planned activities for the day and notify the team of any changing circumstances / other work on the site which may impact on workers' ability to safely carry out tasks.

These daily meetings can often go by different names on various projects or client requirement for example DABs meetings but the objective and outcome is the same.



Example of Whiteboard Meeting



Example of typical Whiteboard

12.3 Field Based Coaching and Intervention

All contractors shall actively foster an environment of on-the-job coaching and intervention. Contractor supervision teams are to receive coaching to empower them to take personal ownership and accountability for the maintenance of HSEQ standards and practices in their assigned work areas. The project workforce is to receive coaching on a continual basis through tool box talks, stand downs and the on-going interaction between field-based supervision and CM Team personnel.

12.4 Safety Stand Down Briefings

Contractors shall participate in HSEQ Stand Down briefings, as requested by the STS Construction Manager. HSEQ Stand Down briefings shall communicate specifically focused, health and safety information to the workforce and typically be held:

- Before returning to work following holiday periods e.g. Bank Holiday weekends; Public Holidays; Christmas etc.
- Following a site incident to communicate lessons learned
- To acknowledge HSEQ performance, commitment, milestones etc.
- To address specific areas requiring improvement.
- To communicate new HSEQ requirements

Example of workers attending a Safety Stand Down Briefing

13 SAFE SYSTEMS OF WORK

13.1 RISK PREVENTION

Contractors shall be required to demonstrate their application of the "Principles of Prevention" when making construction, technical or organisational choices when planning or fixing the duration of the different works and when work phases are executed simultaneously or sequentially during the construction period.

The general principles of prevention shall be applied by the CM Team throughout the planning and execution stages of the construction project including when preparing and reviewing the project schedule, preparing the Construction HSEQ Plans, determining site management requirements including traffic and logistics, reviewing method statements and risk assessments, performing constructability reviews etc.

13.2 DEVELOPMENT AND REVIEW OF RISK ASSESSMENTS AND METHOD STATEMENTS (RAMS)

Contractors shall submit work method statements for all work to be carried out on the project. Refer to 'Method Statement and Risk Assessment' (Document Number HS40) for guidance.

Where the work involves a particular risk, the contractor is to prepare a method statement for that element of the work. The detail within the method statement shall be dependent on the type of work and location. The method statement shall be issued to the Construction Manager at least 7 days before work is due to commence, or as otherwise directed by the Construction Manager. Work shall be carried out in strict compliance with the agreed method statement.

It is well proven that deviations from an agreed method statement represent contributing factors to serious incidents. Violation of the terms of a method statement may be recorded as a non- compliance or a near miss.
RAMS's shall be thoroughly reviewed by the relevant CM Team members prior to acceptance and application by the Contractor for a Permit-to-Work.

Example of Safety Walkdown for preparation of a task specific RAMS

13.3 SAFE PLAN OF ACTION (SPA)

The Safe Plan of Action (SPA) is a field-based task planning tool used by work crews to review proposed work plans in advance of commencement of work.

Each contractor is to review their activities step-by-step and analyse each activity to identify related hazards and precautionary measures to reduce the risks to an acceptable level. Work is not to be permitted to commence unless the work crew and their supervision are convinced it can be performed safely. The task-specific risk review shall be documented in the SPA form (HS24).

The SPA shall be completed at the work location on a task-by-task basis under the guidance of the contractor's supervision with the involvement of the work crews.

Each worker is to sign the SPA confirming they understand and is to apply the risk control measures.

A new SPA is required for every new task or when there are changes in the nature of the work, the work location or the surrounding environment.

A copy of the SPA shall be attached to the respective Permit to Work and posted at a Site Safety Board close to the task location.

Example: Site Safety Board

Blank SPA books shall be provided to each contractor team by the STS Construction Manager.

Contractors Task Supervisors and Health and Safety Advisors shall inspect SPA's completion and quality on a daily basis and coach work crews on improvements required.

Example of Supervisor & Work Crew completing their SPA at the work location

13.4 SPA Performance Assessment

Supervision and Health and Safety Advisors including contractor Health and Safety Advisors are to perform SPA performance assessments to evaluate the effectiveness of the field-based SPA planning tool and to highlight performance trends and the need for intervention coaching or corrective action.

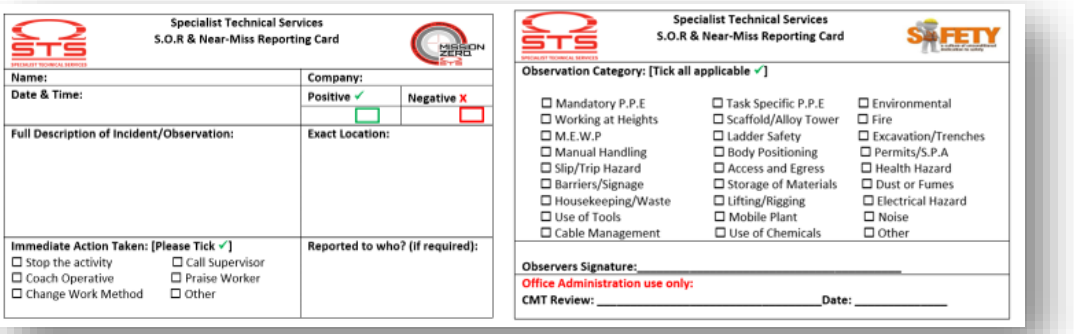
13.5 Safety Observation Reporting

The Construction project HSEQ programme includes the adoption of a Safety Observation Reporting (SOR) Programme. The SOR programme is an active monitoring tool founded on the application of behavioural and intervention principles. All project personnel are empowered to observe, discuss, and record behaviours. SOR cards are completed by participants summarising the nature of the safety intervention and action taken. The SOR programme addresses both safe and unsafe actions and conditions.

The STS CM Team monitor and analyse the report cards on a regular basis. This includes an evaluation of the causal factors and identification of corrective actions. Project personnel are strongly encouraged to participate in the SOR programme, and their participation is recognised. An analysis of SOR categories and trends will be compiled and communicated to Contractors on a regular basis.

Example of SOR completion on-site

To give site personnel feedback on SOR's submitted, an SOR Feedback board will be completed on a regular basis and displayed in a prominent location e.g. Site Canteen.



Specialist Technical Services
S.O.R & Near-Miss Reporting Card

Name:	Company:	
Date & Time:	Positive ✓	Negative x
Full Description of Incident/Observation:	Exact Location:	
Immediate Action Taken: [Please Tick ✓] ☐ Stop the activity ☐ Call Supervisor ☐ Coach Operative ☐ Praise Worker ☐ Change Work Method ☐ Other	Reported to who? (if required):	

Specialist Technical Services
S.O.R & Near-Miss Reporting Card

Observation Category: [Tick all applicable ✓]

☐ Mandatory P.P.E	☐ Task Specific P.P.E	☐ Environmental
☐ Working at Heights	☐ Scaffold/Alloy Tower	☐ Fire
☐ M.E.W.P	☐ Ladder Safety	☐ Excavation/Trenches
☐ Manual Handling	☐ Body Positioning	☐ Permits/S.P.A
☐ Slip/Trip Hazard	☐ Access and Egress	☐ Health Hazard
☐ Barriers/Signage	☐ Storage of Materials	☐ Dust or Fumes
☐ Housekeeping/Waste	☐ Lifting/Rigging	☐ Electrical Hazard
☐ Use of Tools	☐ Mobile Plant	☐ Noise
☐ Cable Management	☐ Use of Chemicals	☐ Other

Observers Signature:_____

Office Administration use only:

CMT Review: _____Date: _____

Example of SOR card

The following minimum SOR participation is expected:

- Contractor and STS workers: 4 SOR's per month.

Where a clients SOR programme is requested to be utilised on a project STS Group will comply with this request.

13.6 Permit to Work and Coordination of Work

A Permit to Work shall be required for all work activities as detailed in the HSE Plan.

After suitable training, contractors nominated supervisory personnel shall be authorised by the Construction Manager, to request and sign for receipt of Permits to Work and as such shall be deemed the "Task Supervisor".

Both general and hazard specific permits (e.g. hot work, confined space entry, work at height, excavations, control of hazardous energy, etc.) shall be used appropriate to the nature and scale of the construction activities.

No work shall be allowed to commence until a work permit specific to the planned work has been approved and issued by a designated member of the CM Team. All personnel working under the permit is to read, understand and sign-off on the permit. A regular permit co-ordination meeting shall be facilitated by a designated member of the CM Team to ensure the safe co-ordination of different work activities.

Contractors, and their respective sub-contractors, are expected to cooperate with the STS CMT and other Contractors. In the event of any coordination issues found on-site between contractors, the CMT should be immediately informed and will resolve as efficiently as possible.

Example of permit to work coordination completed on-site

14 MONITORING AND MEASUREMENT

14.1 PROJECT HSEQ PERFORMANCE MEASUREMENT

The STS CM Team is to ensure the regular measurement of HSEQ performance against defined performance indicators is carried out to determine the level of compliance with site requirements and desired safety behaviours. A mixture of leading and lagging performance indicators shall be monitored to facilitate proactive rather than reactive management of HSEQ performance. The CM Team is to report monthly on HSEQ performance to the Group Health and Safety function in STS.

Example of STS Safety Dashboard

14.2 HEALTH AND SAFETY INSPECTIONS AND AUDITS

Regular site HSEQ inspections / audits shall be carried out by designated members of the CM Team supported by contractor managers/supervisors and site-based health and safety advisors/co-ordinators. Refer to (Form HS31 Weekly Site HSE Audit) for guidance. The CM Team shall develop and maintain an inspection/audit schedule which defines the scope and frequency of the inspections/audits and takes account of project-specific requirements and risks associated with each project phase. The project may also be subject to independent external audits organised by STS, and/or audits by relevant regulatory authorities. Any non- compliance identified shall be recorded and addressed as appropriate.

14.3 DIRECTOR'S SAFETY LEADERSHIP TEAM

Senior management site HSE reviews promote engagement of senior management in the project safety strategy and help demonstrate senior management commitment and leadership. This is to involve members of senior management from customer, STS and the construction contractors participating in scheduled inspections and walk-downs of the construction site. This shall provide an opportunity to positively engage with the construction site personnel and to reinforce the need for safe behaviours.

14.4 Reporting of Incidents, Injuries and Dangerous Occurrences

Contractors are to ensure that their employees report all injuries, incidents and near misses, no matter how minor, to the Construction Manager immediately after they occur. All incidents are to be investigated and recorded following notification. The scene of the incident shall be left undistributed until investigations by the Construction Manager are complete.

A 'Near Miss' is defined as an unplanned event (energy released) which occurred without injury to personnel but had the potential to cause injury/harm. The event had potential or actual property/equipment damage to impact to the environment. Near miss incidents are to be investigated, taking into account the potential for harm to personnel or damage to equipment or environment.

A 'Good Catch' is a specific observation and intervention that prevented an incident from occurring that could have resulted in injury to an individual, property/equipment damage and/or environmental impact.

An 'Environmental Incident' is a spill or release that could impact workers health, property and/or the environment.

An OSHA Recordable Injury is a work related recordable medical treatment injury (treatment by a medical practitioner beyond first-aid as defined by the OSHA table); more than 1-day lost time injury; death; restricted work; transfer to a different role.

A DART Incident is a work-related injury or illness resulting in a worker being out of work more than 1-day lost time; restricted or reassigned work duties or transfer to another job.

Contractors are to comply fully with the Reporting of Accidents and Incidents as detailed in the Construction Health and Safety Plan and associated incident reporting procedures.

Details of all incidents are to be provided to the CM Team Health and Safety Advisor. The contractor, in conjunction with the CM Team Health and Safety Advisor is to conduct an investigation, complete STS's Incident/Near Miss Report (Form HS 16) and forward to the Construction Manager within 24 hours of the incident or as soon as is reasonably practicable based on availability of supporting information. The contractor is to maintain a project incident register which shall be used as part of the project health and safety performance measurement process and to track completion of incident preventive and corrective actions.

14.5 Regulatory Reporting and Notification

The STS CM Team is to ensure that any legally notifiable health and safety incidents are reported to the relevant regulatory authority in accordance with local/regional regulatory requirements. Copies of all such notification forms are to be provided to the Construction Manager.

15 MANAGEMENT OF CONSTRUCTION HAZARDS

15.1 GENERAL

STS's objective is to eliminate all incidents, but particularly severe and fatal incidents on construction projects. The risk assessment process (described in Section 13) shall be used to identify task and location specific hazards of the construction work. The following section outlines common high-risk construction activities that are to be taken into account and addressed as appropriate as part of the risk assessment process.

15.2 HOUSEKEEPING

The company and the contractors shall maintain a high standard of housekeeping on the project site. The contractor is to establish and maintain high standards of housekeeping which address waste management, storage of materials and site cleanliness. This requirement shall be followed until the required standard is achieved on a continuous basis. All contractors are to proportionately contribute manpower to a site housekeeping team.

A "Clean as you go" Policy shall be instilled by contractors into supervisors and the workforce. All individual construction site personnel are expected to adopt a high standard of housekeeping including maintaining their individual work areas in a clean and tidy condition. Action shall be taken to address situations where the levels of housekeeping fall below the required standard. Escalation is to occur where persistent low standards are observed.

Contractors shall provide appropriate and sufficient waste receptacles for each crew, at the task location. Contractors shall label waste receptacles with their company logo.

Waste skips shall be covered, when not in use, to prevent wind borne debris. Waste skips are only to be moved off-site by permitted companies.

Contractors shall appoint an "Environmental Champion" from among their site team, who in additional to their normal duties, will be assigned responsibility for:

Implementation of the 5S approach to housekeeping and material storage i.e.:

1. Sort
2. Set in Order
3. Shine
4. Standardise
5. Sustain

Monitoring correct waste segregation in office areas, canteens, on-site work areas and waste skip areas.

Monitoring specific requirements set out in the Construction Environmental Management Plan (CEMP).

Example of Central Waste Segregation Area

	
Example of clean workshop area	*Example of organised material and tools storage*
	
Example of well organised a tidy stores	*Example of well organised a tidy stores*
	
Example of tidy laydown area	*Example of safe stacking of materials*

15.3 Driving on Public Roads

The STS CM Team and construction contractors are to ensure that their personnel comply with the appropriate national driving licensing requirements. Contractors shall provide a documented driving policy and risk assessment shall be developed for off-site work-related driving activities. Contractors site management shall ensure that all loads being removed from site receive a safety inspection prior to departure onto the public roadway. Similarly, Contractor management shall ensure that project delivery loads receive a safety inspection to check security of the load before opening side curtains / rails etc.

15.4 Safe Operation of Vehicles and Mobile Equipment

Contractors shall ensure that all transport vehicles, mobile equipment (e.g. MEWPs), earth-moving machinery, and materials-handling machinery are designed and constructed to an appropriate standard and have valid test certification. All vehicles and machines (including auxiliary equipment) are to be maintained in good working order and operated by competent trained licensed personnel. All personnel operating vehicles shall comply with the site Traffic/Logistics Management Plan including the use of designated traffic routes, parking and set-down areas, and not exceeding site speed limits.

Vehicles (including Contractors deliveries) entering site must be fitted with a flashing beacon and an audible reversing alarm.

Contractors shall take careful ownership and supervision of all site deliveries and loading/unloading tasks.

Contractors shall ensure that loading/unloading tasks are completed by suitably competent personnel applying the site health, safety and environmental requirements.

Designated pedestrian routes must be provided and used by all contractors, vehicles and pedestrians must be segregated at all times.

Example of pedestrian access routes and designated crossing points

15.5 Plant, Machinery and Work Equipment

There are various hazards associated with the use of construction plant, machinery and work equipment (e.g. mechanical moving parts, electrical hazards, high pressure systems, projectiles, noise and vibration etc.) which shall be properly risk assessed and controlled. Plant, machinery and work equipment shall be supplied, operated and maintained in accordance with National Legislation and best industry practise.

All equipment including hand tools, whether power-driven or not, shall be used solely for the work for which they were designed. All plant and equipment brought onto site shall be properly guarded to prevent injury and be CE marked, or, outside the EU, comply with National Machinery Safety Standard or to a standard equivalent to the European Union Machinery Directive 89/392/EEC.

Every hazardous moving part of machinery shall be securely guarded. Equipment shall be inspected and maintained in good working order. Such inspections are to include statutory examinations and testing as required by local regulations e.g. lifting equipment, pressure equipment etc. A transportation plan for all large or heavy equipment shall be prepared during the planning stages of the project. Construction site personnel operating plant, machinery and work equipment shall be trained and competent to operate same.

Prior to use of construction plant on-site, Contractors shall present a copy of the required statutory test certificate to the STS CM Team. Once verified a STS Plant sticker will be issued to permit use of the plant on-site.

Construction plant shall be fitted with all required safety devices e.g. Roll-Over protection; auxiliary visual-aid devices (reversing cameras and mirrors) alarms such as reversing and motion alarms.

Example of MEWP with STS Plant Sticker displayed

For ease of identification all plant and equipment tested shall be colour coded. The colour code tag / label shall be applied to the equipment according to the suggested colour codes.

Q. 1: January -March	White
Q. 2: April June	Green
Q. 3: July- Sept	Blue
Q. 4: Oct- Dec	Red

Contractor employees are not allowed to use or operate any plant, equipment or energy source such as gas, compressed air, oxygen and electricity belonging to the Customer / Construction Manager, unless permission has been provided in writing by the Customer / Construction Manager.

If authorisation is granted to connect tools or equipment to the energy sources, the responsibility rests with the contractor to check that the operating pressure or voltage is correct for the intended purpose. Contractors are to ensure that they employ competent workmen who are familiar with appropriate plant and equipment.

All portable electrical equipment which is used on site shall be PAT tested every 6-months and colour coded as per the above schedule. Portable electrical equipment which is office based will be tested every 12 months.

Concise Latest Test Results

Test Status: All, Test Type: All
Person: STS, Instrument: 06N-1251
From: 24/05/2021 To: 27/05/2021

Page 6
Thursday, 27. May 2021 15:55

Asset ID	Description	User	Test Instrument	Date	Retest Period	Next Test	Result
0110	WELDING MACHINE	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0111	BATTERY CHARGER	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0112	BATTERY CHARGER	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0113	BATTERY CHARGER	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0114	BATTERY CHARGER	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
Location: STORE							
Asset ID	Description	User	Test Instrument	Date	Retest Period	Next Test	Result
0115	Drill	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0116	Light / Lamp	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0117	MAG DRILL	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0118	ANGLE GRINDER 9inch	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0119	TRANSFORME 02	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0120	TANSFORMER 04	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0121	SPLITTER BOX 02	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0122	SPLITTER BOX 04	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0123	0123	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0124	BATTERY CHARGER	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0125	BATTERY CHARGER	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0126	BATTERY CHARGER	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0127	BATTERY CHARGER	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0128	BATTERY CHARGER	STS	Seaward Apollo 500 Plus 06N-1251	27/05/2021	12 Months	27/05/2022	Pass
0129	BATTERY CHARGER	STS	Seaward Apollo	27/05/2021	12 Months	27/05/2022	Pass

Example of a PAT Test Label and Report

15.6 Work at Height

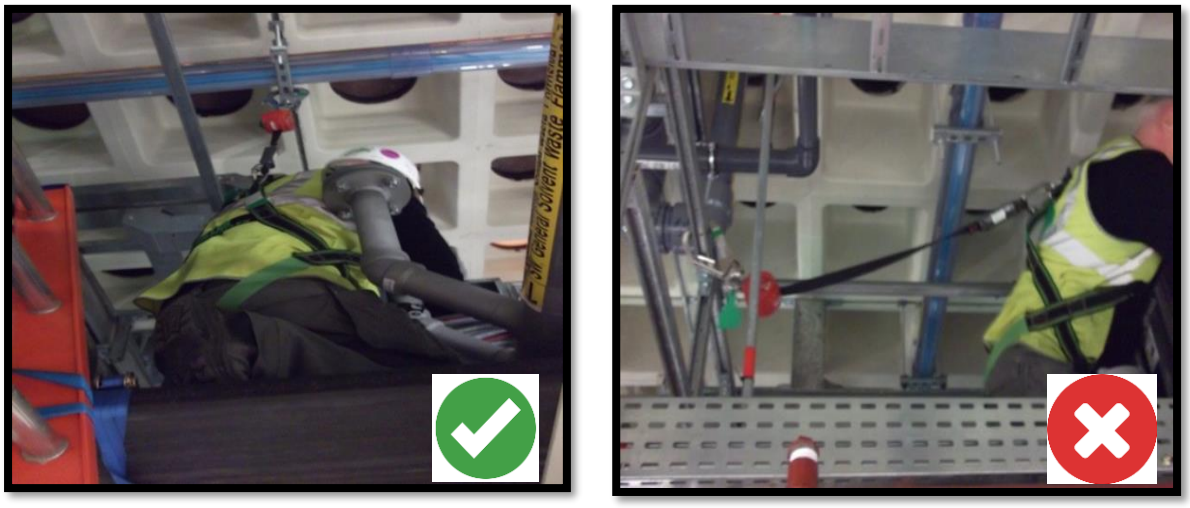
Contractors shall be aware of and in compliance with the National Health and Safety Working at Height Regulations.

The contractor is to develop and implement a safe work at height procedure (to include rescue from height arrangements). Work at height means work in any place, including access or egress to any place (except by a staircase in a permanent place of work) and work at or below ground level, from which a person could fall a distance liable to cause personal injury.

Work at height shall be avoided where practicable. Where not avoidable, work at height shall be properly planned and organised through risk assessment. Work at height equipment such as scaffolding, mobile elevated work platforms (MEWPs) and ladders shall be properly designed, constructed, inspected and maintained by a competent person. Where work at height is necessary, safe working platforms incorporating fall prevention barriers are to be used as a first choice. Where fall prevention barriers are not practicable, certified personal fall restraint and/or arrest systems shall be utilised as required.

All work at height equipment is to comply with applicable national standards. Where contractors provide their own means of access, such arrangements are to be in accordance with all legal requirements and relevant site standards and training requirements. Contractors are required to place an identification (ID) label on all work at height equipment prior to its use on site. The Equipment ID label is to detail the name of the contractor organisation responsible for the work at height equipment and the date in which the label has been applied. A Work at Height Equipment ID register shall be established and maintained by each contractor.

Many work at height tasks may require a specific rescue from height plan. Contractors shall outline this plan in the work Method Statement and Risk Assessment.



Example: use of inertia reel when working off services

15.7 Mobile Elevated Work Platforms (MEWP)

As outlined in Section 15.5 above, prior to use of an MEWP on-site, Contractors shall present a copy of the required statutory test certificate to the STS CM Team. Once verified a STS Plant sticker will be issued to permit use of the MEWP on-site.

Only competent, trained personnel shall be permitted to operate MEWP's on-site. Persons must be trained to IPAF, RITB or an equivalent national standard approved by the STS Construction Manager.

MEWP Operators shall conduct a daily, recorded, pre-use operational inspection of their MEWP. Any defects shall be immediately reported, and the MEWP removed from use.

Contractors shall avoid trying to gain additional height by standing on MEWP mid-rails; top-rails or toe plates.

MEWP's shall be kept in a clean condition. Materials shall not be stored inside the MEWP that could present a trip hazard.

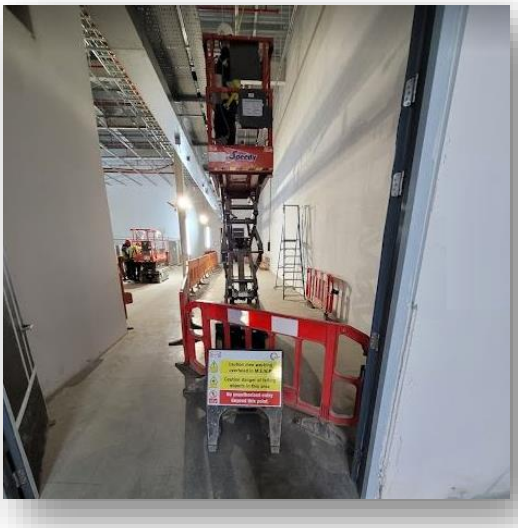
Contractors shall provide a trained MEWP Spotter at ground level. They shall have no other working duties while performing the Spotter function and have the following duties:

- Enforce the exclusion zone to prevent unauthorised entry to the work area.
- Advise the MEWP operator of adjacent hazards when they are moving/repositioning the MEWP.
- If the MEWP operator becomes incapacitated i.e. if the MEWP requires to be manually lowered from height, the Spotter shall use the MEWP emergency lowering functions.

Note a Spotter shall be permitted to cover more than one MEWP exclusion zone in the same work area pending risk assessment by the Contractor.

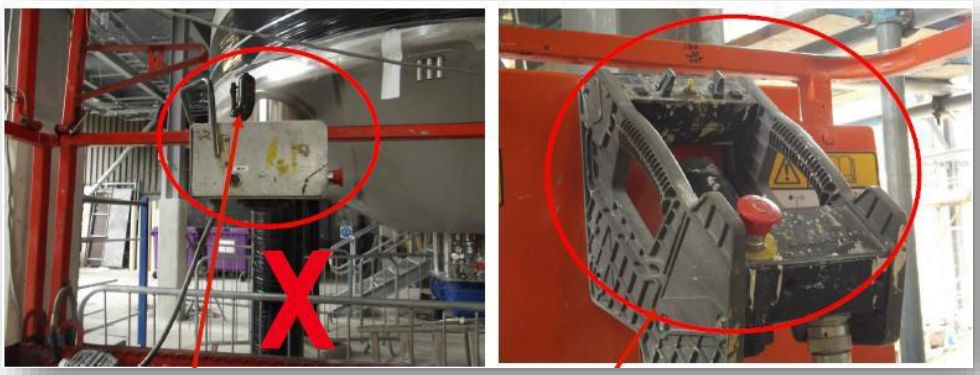
Exclusion zones shall be comprised of fully interlinked barriers with appropriate warning signage displayed.

Contractors shall ensure that MEWP Spotters have certified MEWP training and instruction in how to operate the emergency control functions. Contractors shall provide a training record to the STS CM.



Example of interlinked barrier exclusion zone around an MEWP work at height task

Contractors shall ensure that MEWP control functions have adequate guarding fitted to prevent inadvertent activation and crush type injury.



*Example of inadequate Shroud Protection **X*** *Example of Adequate Shroud Protection √*

Example of MEWP handrail foam bump protector √

15.8 PODIUM LADDERS

Podium ladders shall only be used where a safer working platform is impractical or more hazardous.

The use of podium ladders will only be allowed where the work is of short duration, of a light nature and where no safer means is practicable

The use of a podium ladder is subject to the WAH risk assessment. This must be displayed on the ladder.

Maximum height of podium allowed on site is 3 metres (to the platform height). Outriggers and closing gate must be used as per manufacturer's instructions.

All podium ladders must be in good condition; have a CE marking and be of industrial standard. No domestic ladders will be permitted.

All podium ladders must be uniquely identifiable to the owner company. Podium ladders must be entered into a company ladder register, which the contractor must update, and be inspected weekly and tagged to show inspection date

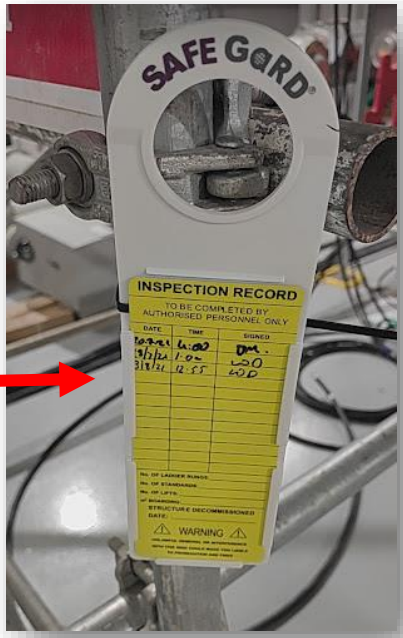
Timber or fibreglass ladders are the only ladders permitted for use inside live electrical switch rooms. This is subject to a work at height permit and WAH risk assessment.

Example: Podium Ladders

15.9 SCAFFOLDING

All scaffolds shall only be erected, modified or dismantled by trained competent personnel appointed to work on-site. No alterations shall be carried out by anyone other than the authorised scaffolders on site. All scaffolds must be fit for purpose and constructed in accordance with an approved design and the relevant, national, scaffolding Code of Practice. “Non-Standard” scaffolds must be designed by a competent engineer and subject to a Temporary Design Works certificate. Contractors shall ensure that non-standard scaffolds are constructed as per the design drawings issued for the scaffold.

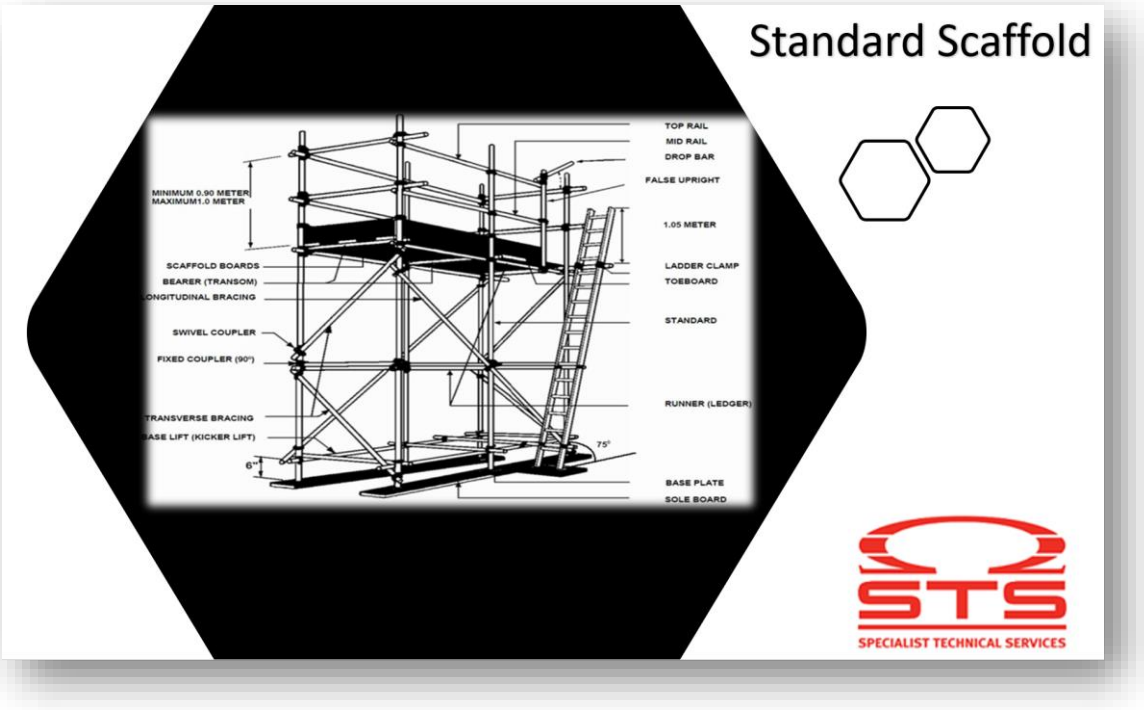
All access points to the scaffold must have a scaffold tag fitted.



Example of Scaffold Inspection Tag displayed at entry point to a scaffold

All working platforms must have guardrail protection of mid rails and top rails. The Maximum height of the top rail shall be 1200mm and min height of 1000mm. The gap between the top and mid rail shall not exceed 470m. The minimum width of a working platform shall be 600mm. All working platforms must be fitted with a toe board.

All working platforms must have a safe means of access. Scaffolds must be kept free of debris and excess materials. Scaffolds must display the max load allowable on the scaffold.



Standard Scaffold Working Platform Elements

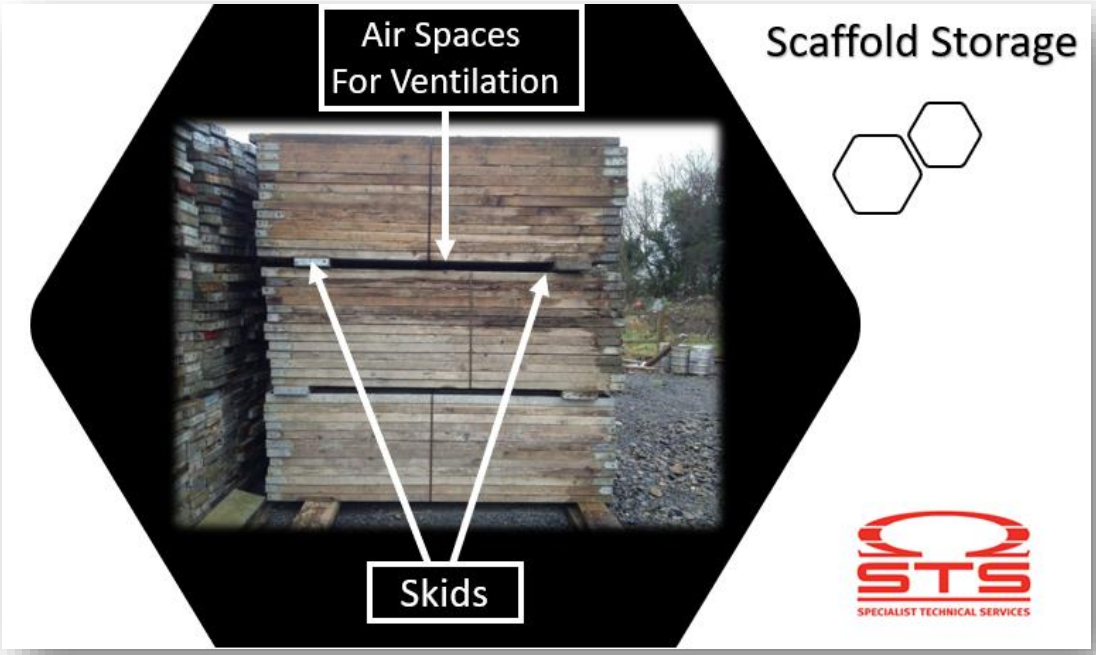
Where scaffolding and/or scaffold access ladders could potentially be impacted by moving vehicles, Contractors shall provide adequate protection measures.

Contractors shall ensure that a Scaffold Register is maintained on-site to record all scaffolds. Contractors shall ensure a system is in place for inspection of all scaffolds:

1. Upon scaffold erection and before initial use
2. At least weekly by a Competent Person (Advanced Scaffolder)
3. Following inclement weather or an impact to the scaffold.

Contractors shall ensure that the above requirements are applied where scaffolding is used as an advanced handrail edge protection system.

Contractors shall ensure that Scaffolding elements are stored appropriately to avoid impact or injury and that regular recorded inspections are conducted in storage/compound areas to ensure best practices are applied to maintain quality scaffold materials e.g. scaffold boards.

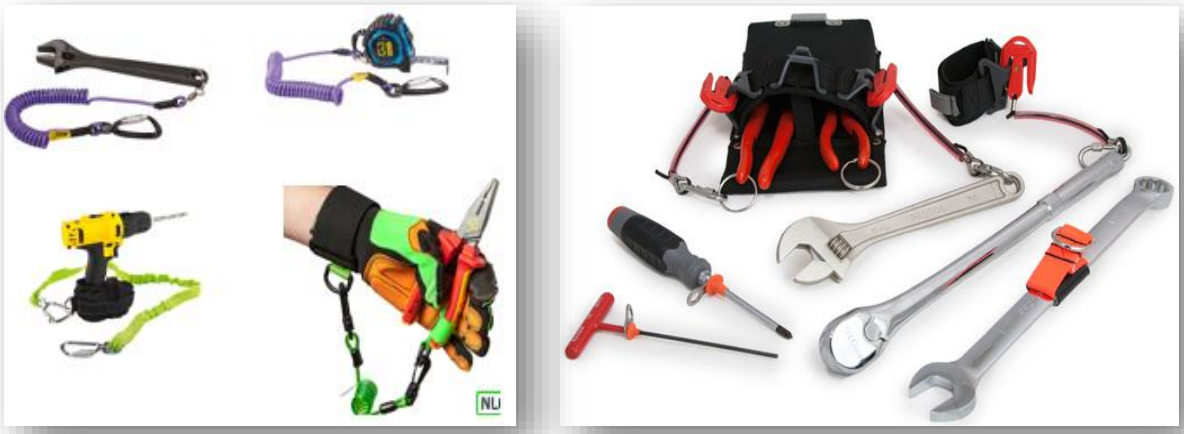


Example of scaffold board storage to avoid potential decay

15.10 Dropped Objects

Wherever possible and technically feasible, construction site personnel shall be protected by collective methods against falling objects such as fall prevention barriers, toe boards on scaffolding, netting etc. Materials and equipment shall be stored, secured, laid out, or stacked in such a way as to prevent collapsing, falling or overturning.

Tools must be tethered when working at height. Contractors shall comply with STS 'Stop the Drop' initiative to include the use of tool tethering to prevent dropped objects. This initiative is covered under STS induction.



Example of tool tethering equipment

15.11 LIFTING EQUIPMENT

Lifting equipment shall be designed to an appropriate standard and fit for purpose, including a safe working load which exceeds the maximum weight to be lifted. Lifting equipment shall be properly installed, used, inspected and maintained to ensure it is free from any defect. All lifting equipment shall be identified within a site register. Specific lifting plans shall be developed by competent personnel (e.g. certified riggers) for all critical lifts (lifts greater than 5 tonnes or of complexity whereby a Lift Plan is requested by the Construction Manager).

All lifting gear components shall be stored in an appropriate storage unit.

Example of a safe and tidy Lifting Gear storage

Authorised riggers and signallers must wear an orange hi visibility vest.

All equipment used for rigging must be certified. Only certified slings ropes/chains are permitted for rigging activities. CE marking, SWL and manufacturers serial number must be clearly marked on the lifting gear.

Rigging equipment must be visually inspected on a six-monthly basis (minimum) and tagged.

Chains shall not be used to lift steel. Nylon webbing slings or similar must be used. Chains & Slings must not be shortened by knotting. Chain clutches and shackles must be used.

All crane lifts must be conducted under the supervision of a signaller at all times. Loads being delivered to height must be landed in by a similarly qualified signaller.

All loads capable of sway and heavy loads must have a tag line attached to aid safe movement and placing of the load. The length of tag lines must be suitable for the load. They must not present an additional hazard to personnel from snagging etc.

All areas must be cordoned off during rigging operations. Loads must not be lifted over personnel.

Notification of loads being lifted shall be by an airhorn (or other means approved by the Construction Manager). It is the responsibility of the rigger and or banksman to remove personnel from the travelling path prior to commencing the lift.

Chain blocks must not be used for lifting/pulling operations unless it is a straight lift (i.e. Chain blocks are not permitted to pull a load at an angle unless certified by the manufacturer to do so).

Example of use of gantry crane by certified person, certified and tagged equipment.

15.12 CRANES

Contactors are to ensure that the organisation of lifting operations shall be carried out in line with best industry practice. All cranes, whether owned by the contractor or hired, are to carry relevant test certificates and thorough examination reports, together with the manufacturer's handbook. Only persons who can prove they are certified to operate the class of mobile crane are to be allowed to operate cranes. Contractors are to implement a regular inspection and maintenance programme to ensure that all components of the lifting device are in good working condition.

Crane drivers shall complete a daily visual crane inspection to ensure that all crane components and lifting aids e.g. jib extensions, are in good condition and secured correctly in place, as required. All lifting equipment accompanying the crane shall comply with the requirements of this document and best industry practice.

Prior to bringing a crane to site Contractors shall have ground conditions and slew radius assessed to identify any additional hazards and control measures required e.g. soft ground conditions; restricted space; pedestrian walkways; overhead electricity lines etc.

Crane lifts must not exceed the crane load chart capacity. As an additional safety factor, loads cannot exceed 75% of the crane capacity.

Example of exclusion zone around a crane operation

15.13 Manual Handling

Manual handling shall be avoided where possible and mechanical handling equipment shall be used as far as practicable. Where manual handling cannot be avoided, a risk assessment shall be completed. Contractors shall ensure that all construction site personnel involved in manual handling tasks receive appropriate manual handling training and maintain training records for inspection.

Example of a manual handling lifting

15.14 Excavations, Shafts, Earthworks, Underground Works and Tunnels

Excavation is considered as breaking of any ground surface in any form.

Contractors shall ensure that adequate precautions are taken for any works on or in excavations, locating services, shafts, earthworks, underground works or tunnel to protect the safety and health of all construction site personnel.

All excavating and materials-handling vehicles and machinery are to be designed to an appropriate standard, inspected and maintained in good working order, and operated by trained competent personnel.

Site drawings must be studied, and areas scanned for live services. Only once possible risks have been identified and control measures are defined, contractors will be given permission to proceed using Trenching and Excavation Permit (Form HS 09).

Excavated material and work equipment/materials/tools and plant must be kept at least two metres back from the edge of the excavation.

Where excavations are stepped, no vertical face can be greater than one metre unless the ground conditions are signed off by a qualified engineer. Vertical faces should be angled if possible, to a safe angle of repose for the ground conditions. No horizontal shelf must be less than one metre wide.

On stepped excavations, where the vertical dig is one metre or greater, no horizontal shelf may be used for access unless suitable edge protection is in place to prevent a fall.

Trench boxes, where used, must be lowered to below one metre in height from the base of the excavation.

Safe Access into trench boxes must be provided via a secure ladder or a graded ramp.

In deep excavations e.g. where trench boxes are used in preference to stepping of the excavation, the excavation must be treated with the same precautionary measures as a confined space (Refer to requirements outlined in Section 15.15). A Rescue Plan must be in place for retrieval of personnel.

Pedestrian barriers must not be used as edge protection unless they are placed a minimum of two metres from the leading edge. Scaffold handrails may be used as edge protection for workers but where there is public exposure to the excavation the entire dig area must be secured with Heras type fencing and deep excavation warning signage. Workers going inside the handrail must be protected from falling by use of fall protection equipment or otherwise.

The following considerations will be given when disturbing ground.

- Identification of ground disturbance activities in the work scope and schedule
- Define the process to be used to locate existing underground pipes, cables, vessels or any other existing utilities
- Define the process for tracking and updating as-builts and drawings / BIM models
- Have a process to perform risk assessments for each ground disturbance activity
- Utilise the excavation Permit
- Training and authorization requirements for those performing Ground Disturbance activities.
- Protection of open excavations, regardless of depth
- Emergency plans, including rescue plans for cave-ins of excavation activities

Example of scaffold barrier edge protection and warning sign at an excavation

15.15 Confined Spaces

Confined Space refers to any place, including any vessel, tank, container, pit, bund, chamber, cellar or any other similar space which, by virtue of its enclosed nature, creates conditions that give rise to a likelihood of an accident, harm or injury of such a nature as to require emergency action due to the presence or reasonable foreseeable presence of:

- flammable or explosive atmospheres
- harmful gas, fume or vapour
- free flowing solid or an increasing level of liquid
- excess of oxygen
- excessively high temperature
- the lack or reasonably foreseeable lack of oxygen.

Confined space entry shall be avoided where practicable. Hazards can be encountered where work is carried out in excavations, tanks, vessels, pipes, or other confined spaces. Where not avoidable, confined space entry shall be properly planned and organised through risk assessment.

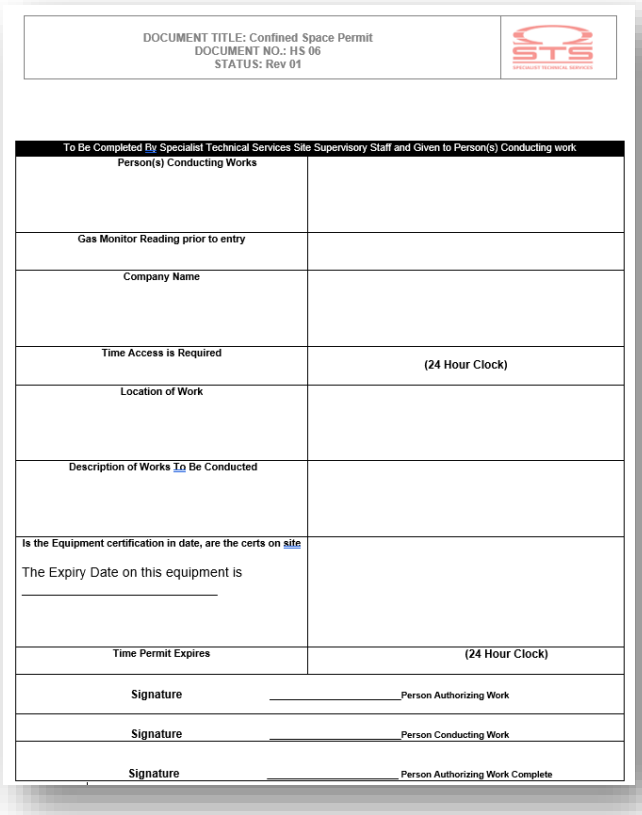
All confined spaces on site are to be identified and a confined space register maintained. The contractor is to ensure compliance with the National Safety, Health and Welfare at Work Regulations relating to the management of Confined Space hazards, any amendment to same and any supporting Codes of Practice.

No person shall enter or carry out work in a confined space without having received the required confined space training by a certified, competent trainer / training body. No person shall enter or commence work in any excavation, tank, vessel, pipe or other confined space, until a valid Confined Space Permit (Form HS 06) has been issued.

The Method Statement / Risk Assessment for the confined space entry is to fully detail the emergency / rescue plan and all resources and emergency equipment required to effect a rescue. Contractors shall provide all necessary entry and rescue equipment. Contractors shall provide calibrated gas monitoring equipment. A means of rapid communication with site security and emergency services will be required.

Contractors shall provide a trained Confined Space Stand-By (Top Man) for all confined space entries.

Electrical lighting for use in confined space is to not exceed 24 volts (and be explosion proof where applicable). Powered hand tools used in confined spaces are, where possible, to be battery operated. Where any operation involves the use of gas and oxygen equipment in enclosed or semi- enclosed spaces, contractors is to carry out frequent checks to ensure these procedures are complied with. Oxygen or gas cylinders are not to be taken into confined spaces for use or storage.



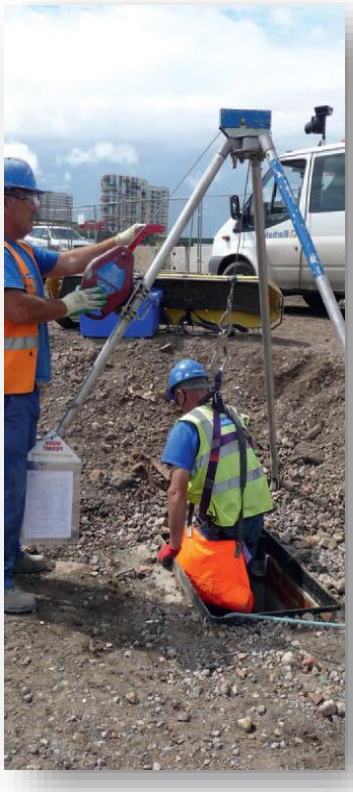
DOCUMENT TITLE: Confined Space Permit
DOCUMENT NO.: HS 06
STATUS: Rev 01

To Be Completed By Specialist Technical Services Site Supervisory Staff and Given to Person(s) Conducting work	
Person(s) Conducting Works	
Gas Monitor Reading prior to entry	
Company Name	
Time Access is Required	(24 Hour Clock)
Location of Work	
Description of Works To Be Conducted	
Is the Equipment certification in date, are the certs on site The Expiry Date on this equipment is _____	
Time Permit Expires	(24 Hour Clock)

Signature _____ Person Authorizing Work

Signature _____ Person Conducting Work

Signature _____ Person Authorizing Work Complete



Example of Confined Space Entry Permit completion; gas test and tripod & winch rescue system

15.16 Hot Works

Hot Work includes but is not limited to burning, welding, grinding and heat treatment. All hot work shall be performed when the risks have been identified, control measures defined and permission to proceed sanctioned using a Hot Work Permit (Form HS 14).

The Hot Work Permit is to control all hot works on site and prevent potential fire situations arising. The permit is to include where necessary measures to prevent/control hot works in areas containing flammable atmospheres (e.g. ATEX / EX-rated areas and equipment) and combustible materials. Welding and burning of certain materials may give rise to hazardous fumes. These activities are to be subject to a written assessment in compliance with the applicable National Chemical Agents Regulations.

Suitable and sufficient exclusion barriers and signs are to be put in place in all hot work areas. Welding stations shall have full 360-degree welding screen protection.

All hot work equipment shall be in good condition, properly maintained and earthed. Contractors are to undertake a daily cable management inspection.

Contractors shall provide a dedicated non-working fire watch at hot work locations. Firewatch durations shall be a minimum of 60 mins and up to 3 hours (depending on client requirements) following completion of hot works as per the site Permitting requirements.

Contractors shall provide appropriate fire extinguishers, fire blankets and trained Firewatch personnel at hot work locations, as per Hot Work permit requirements.

15.17 Chemical Hazards

Chemical hazards can take the form of a hazardous solid, dust, fibre, liquid, gas, vapour, or fume. Chemical hazards include many materials commonly used and encountered on construction sites such as cement, welding/colophony fumes, contaminated soil on brownfield sites, asbestos, paint, solvents, resins, fuels, oils/lubricants and cleaning agents.

Contractors are to ensure appropriate safety control measures are implemented where construction site personnel are liable to be exposed to a hazardous chemical(s). A risk assessment shall be completed to identify chemical hazards and specify the necessary safety control measures. The chemical safety data sheet (SDS) shall be provided and reviewed as part of the risk assessment process.

Example of chemical labelling and secondary containment

Example of chemicals bunded

Example: Mobile generators must be positioned in secondary containment to contain anyleaks/spills

15.18 Biological Hazards

Biological hazards include potential exposure to harmful micro-organisms (bacteria, viruses, parasites etc.) which can cause disease such as stagnant water systems (e.g. Legionnaires' disease), contact with sewage (E.Coli, Hepatitis) and contact with rat urine (Leptospirosis / Weil's disease).

Contractors is to ensure an appropriate risk assessment is carried out and safety control measures implemented to control potential biological hazards to which construction site personnel may be exposed.

Coronavirus Covid-19 – refer to the Covid Mitigation Plan specific to each Project or risk assessment.

15.19 Noise and Vibration

Contractors are to comply with the National Health and Safety regulations relating to the control of noise and vibration at work. Contractors shall implement a specific noise and vibration awareness program to inform workers of the dangers of noise and vibration exposure and the required control measures to be applied.

Appropriate control measures shall be implemented to ensure that construction site personnel are not exposed to excessive noise and vibration levels and that specified noise and vibration exposure limit values are not exceeded.

- Daily personal noise exposure (LEP,d) shall be limited to 80 dB(A). Where noise levels from operations exceed 80 dB(A) all employees involved in the operation shall be supplied by the contractor with suitable, approved hearing protection.
- Hand Arm Vibration - The daily exposure action value standardised to an eight-hour reference period is 2.5m/s2.
- Whole Body Vibration – The daily exposure action value standardised to an eight-hour reference period is 0.5m/s2.

Appropriate controls include appropriate engineering, administrative and PPE as defined in local/regional legislation and based on a risk assessment.

Contractors shall provide, where practical, acoustic enclosures to reduce noise levels at cutting stations

15.20 Ionizing and Non-Ionizing Radiation

Contractors shall discuss and agree with the STS CM and relevant STS Discipline Engineer, the safest and most appropriate method of Non-Destructive Testing (NDT) of pipework. Ultrasconic Testing shall be given consideration over Radiographic Testing, where practical.

Appropriate control measures based on risk assessment shall be implemented to protect construction personnel from potential exposure to both ionising radiation sources (e.g. radiographic scanners for inspection of pipe-welds) and non-ionising radiation sources (e.g. UV, lasers etc.). Contractors shall implement a specific awareness program to inform workers of the dangers of ionising and non-ionising radiation exposure and the required control measures to be applied.

Radiography work shall be supervised by a suitably qualified Radiation Protection Advisor. Advisors are to be nominated in writing and notified to the Construction Manager. Contractors are to complete the applicable documentation approved by the Construction Manager prior to commencing work.

Radiography areas and radioactive source storage areas shall be clearly marked using barriers, notices and signage.

Radiography shall be carried out at the times agreed with the Construction Manager and notification shall be received by the Construction Manager at least 24 hours in advance.

All contractors who are not involved in radiography work are to ensure that their employees observe warning notices, alarms and barriers in use where such work is being carried out.

15.21 Lone Working

Contractors shall comply with STS Lone Working Procedure (SOP 409) and complete a formal risk assessment for any works that may require lone working for any duration of the task. Details of specific control and communication methods must be detailed in the risk assessment and accepted by the STS CMT. Contractors shall implement a buddy system at all times on-site to avoid lone working situations.

15.22 Weather and Atmospheric Conditions

The CM Team and construction contractors are to ensure that construction site personnel working outdoors on a construction site are protected against atmospheric influences which could affect their safety and health. Planning of construction works is to take account of weather conditions (e.g. high winds, extreme heat, icy conditions etc.) and if necessary re-schedule activities that cannot be carried out safely in such conditions e.g. work at height, use of MEWP's; crane lifts etc.

15.23 Sharp Hazards

Construction contractors is to take appropriate measures to prevent potential contact with sharps / cutting hazards on site (e.g. timber with projecting nails, broken glass, metal sheeting, cutting tool etc.). Appropriate controls measures based on a risk assessment shall be implemented to protect employees from such hazards.

15.24 Power Actuated Tools

Contractors who intend using power actuated tools are to first obtain the permission of the Construction Manager prior to bringing tools on site. The contractor is to provide a written Method Statement detailing the following:

- Authorised users
- Training given
- Storage arrangements for machines and cartridges
- Control measures for issue and return of equipment and cartridges
- Limitations on the type of work undertaken
- Safety precautions required during use
- Means by which cartridges shall be disposed of
- Type of cartridge(s) to be use

Authorised persons are to be properly trained and competent in the safe use of the equipment and are to be in possession of a certificate detailing their appointment in writing. Mis-fires, penetration through the fixing material or other unplanned incidents are to be reported to the Construction Manager.

15.25 Abrasive Wheels

Contractors are to maintain a list of authorised persons permitted to use abrasive wheels on-site. Contractors shall ensure that workers authorised to operate and maintain Abrasive Wheels (fit cutting discs) have attended an approved course of training.

Details of each workers training is to be entered in the Abrasive Wheels register kept on site by each contractor. Contractors are required to produce certificates and registers on request. Machines used to drive Abrasive Wheels are to be maintained in good condition and properly guarded. Pedestal or bench mounted grinders are to have an emergency stop button, be fitted with a properly adjusted tool rest and Perspex shielding between user and wheel.

All material preparation e.g. cutting using a cutting disc; grinding; polishing etc shall be carried out on a suitable work bench. The material to be prepared shall be secured prior to cutting / grinding operations taking place. Abrasive wheels used on site are to be used within the date timeframe specified by the manufacturer. Cutting discs are not ever to be used for grinding.

Example of a bench mounted grinder & PPE requirements (double-eye protection)

15.26 Compressed Air / Air Receivers

All air receivers and compressors are to be in good condition and properly maintained. Air receivers are to be individually identified and marked with their safe working pressure. Air receivers are to be accompanied by a valid test certificate.

All air receivers are to be fitted with a properly set pressure relief valve. Air receivers shall be examined and the pressure relief valve tested by an independent examiner at yearly intervals. The contractor is to keep a copy of all required certification. Contractors shall maintain a register of all air receivers on-site.

All compressed air hose fittings are to be provided with safety pins and anti-whip checks to prevent them from whipping should the coupling separate. Only hose clamps designed for compressed air service shall be used. Worm drive (Jubilee) clips are not acceptable. Compressed air is never to be used for cleaning clothes or skin. Nozzles used for air blowing are to be fitted with a dead man's handle or valve.

Example of an Anti-Whip Check

15.27 Electrical Hazards

Electrical work is to only be carried out by trained competent personnel. All electrical equipment and electrical installations shall be designed, installed and maintained to appropriate standards by a competent person(s) including both fixed and portable equipment. Portable electrical equipment is to either operate at a low voltage (e.g. 110V) or be protected by residual current devices.

Use of electrical tools above 110 v on construction sites in countries where it is legally permissible under regulations will be accepted but must be set up and utilised safely.

To reduce the risk of trip injury from trailing cables, contractors shall implement a policy of using cordless tools only, where possible.

Example of cordless tools

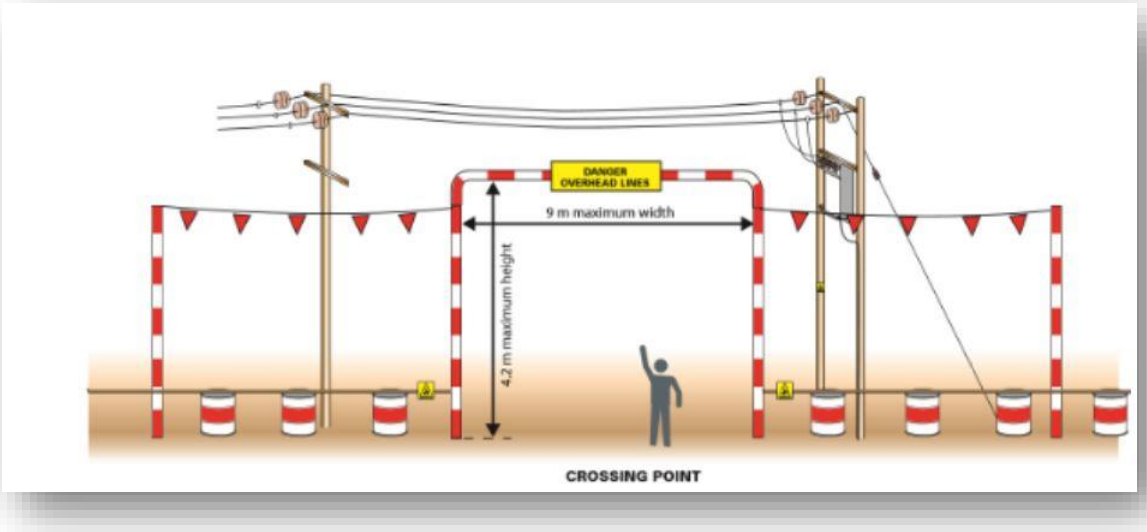
Where used, electrical leads shall be connected to the power source through standard industrial waterproofed plugs and sockets, be in good condition and routed so as to prevent trip hazard.

Contractors shall provide and use suitable cable hooks for safely routing leads.

Example: Cable hooks

Contractors shall nominate a competent person on site who will be responsible for ensuring that all power tools are checked for defects at least weekly. Appropriate measures are to be implemented to prevent potential contact with underground or overhead electrical supply lines. All trailing electrical leads and hoses shall be suspended where possible and maintained so as to minimise tripping hazards.

Examples of potential ways to impact underground services and endanger workers



Graphic illustrating safety requirements where site plant will pass near or under electrical power lines

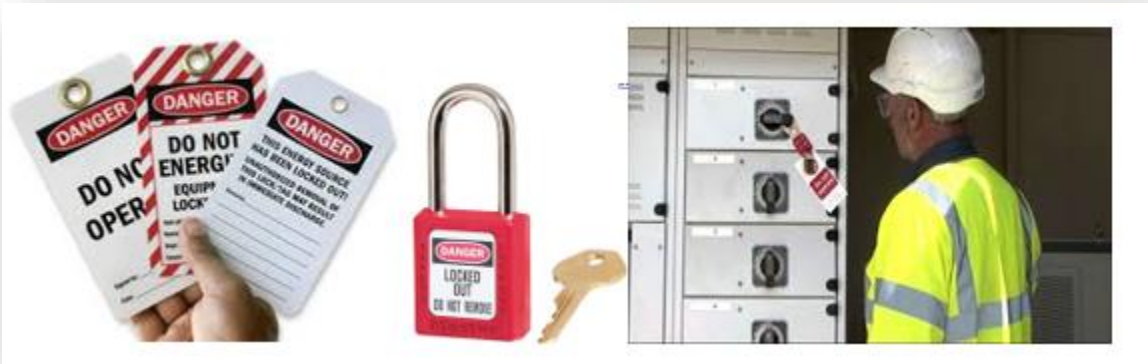
No persons are to commence electrical work until a valid Permit to Work on Electrical (form ESF-002) has been issued. Any invasive work on electrical equipment shall be controlled as part of the site Lockout/Tagout (LOTO) procedure (SOP 506).

15.28 Control of Hazardous Energy and Lockout/Tagout (LOTO)

Contractors shall comply with the site Lockout/Tagout (LOTO) procedure (SOP 506) to ensure all potential sources of hazardous energy (e.g. electrical, mechanical, chemical, hydraulic, pneumatic, thermal/steam, stored energy etc.) are isolated and controlled to protect all persons carrying out work on equipment and installations containing hazardous energy sources. The STS CM Team will develop and implemented a project specific Control of Hazardous Energy procedure to manage live hazards for the commissioning, qualification and validation stage of the project (CQV).

Contractors shall provide all required isolation devices to perform LOTO as per the site requirements.

Please reference the STS Electrical Safe Systems of work procedure for further guidance.



Example of LOTO Lock and Tag

15.29 Temporary Electricity Supplies

The Construction Manager shall provide access lighting. Contractors are to provide task lighting suitable to the tasks being carried out. The Construction Manager is to provide a general temporary electrical power supply to power distribution boards for task lighting and power tools.

No individual shall interfere with or work on any electrical installations or equipment provided by the Construction Manager without written consent from the Construction Manager and without being suitably trained and approved. Repair or installation of any electrical equipment is to only be carried out by a competent qualified electrician.

Socket outlets, plug connectors and cable couplers are to comply with the appropriate national Standard equivalent to International Standards IEC 60309-1 and IEC 60309-2 or European Standard BS EN 60309-1.

15.30 Use of Gas and Oxygen Equipment

Where contractors bring their own equipment onto the project site, such equipment is to comply with applicable standards. The equipment used by contractors shall be properly maintained. Users are to check the equipment for perished or damaged hoses, regulators and pressure gauges. Defects are to be reported by users to their supervisors.

All gas cylinders are to be handled with care and they are not to be misused or abused. They are to be properly shut off when not in use and safety caps are to be fitted when being moved. Hoses not in use

are to be coiled up and put in a safe place. Hoses are to whenever possible be supported off the ground.

Gas cylinders shall be stored in an appropriate, well-ventilated areas and protected against vehicle impact. Contractors shall ensure that suitable distances are followed for storing LPG away from other gas cylinders.

Contractors shall provide sufficient trolleys for the safe movement and storage of gas cylinders on-site.

Gas cylinders must not be used alongside or in the vicinity of other hot works tasks in case of sparks causing a fire or explosion.

15.31 CONSTRUCTION WORK ON OR ADJACENT TO WATER

The STS CM Team and Contractors shall ensure that where, on or adjacent to the construction site, there is a risk of a person falling into water, appropriate control measures are implemented to prevent potential drowning or other injuries to personnel on the basis of a risk assessment.

15.32 OPE's

The STS CM will implement an OPE Management Procedure to control the creation of and protection to OPE's. Contractors shall ensure compliance with the requirements of the OPE Management Procedure and Permit to Work to prevent the potential for personal injury or dropped objects. Contractors shall very carefully pre-plan the creation of any OPEs. Areas in which floor OPEs are being created shall be appropriately protected by the Contractor by using fully interlinked barriers and warning signage.

Ope Protection Table

Ope Type	Diameter	Pedestrian Traffic Only	Protection	Vehicular & Pedestrian Traffic	Protection
Type A	Floor 75mm-300mm	Then →	25mm ply chamfered all around	then →	6mm steel plate fixed securely
Type B	Floor 300mm-600mm	then →	Timber frame insert (to prevent shifting) with 25mm ply secured on top (min. 100mm bearing/ overlay on existing surface)	then →	10mm steel plate securely fixed in place
Type C	Floor 600mm+	then →	Handrails around the ope with toeboard, netting over the handrails or fully ply out the ope where fall of materials poses a risk.	then →	15mm steel plate securely fixed in position
Type D	Wall Opes	N/A	Double guard rail and toe board or sheeted with plywood.	N/A	Double guard rail and toe board or sheeted with plywood.

Example: OPE's Protection Requirements

15.33 Contractor Compound Facilities

i.e. Workshops, Stores Drying Rooms and Offices

Contractors shall ensure that the highest health and safety standards are applied in their compound facilities. Contractors shall ensure that method statement and risk assessments are prepared and implemented for tasks completed in these areas, particularly the use of machinery. Contractors shall undertake daily and weekly safety inspections to monitor safety standards, particularly housekeeping; dust extraction; fire prevention and fire safety provisions; machinery safety and safe access/egress.

Contractors shall implement a 5S approach to housekeeping and material storage i.e.

- Sort
- Set in Order
- Shine
- Standardise
- Sustain

Example of a tidy Workshop standard

Example of organised sites & good practice

15.34 HEALTH

Health, safety and wellbeing is firmly ingrained in STS's philosophy. Although project construction work is a rewarding and varied industry to work in, it is also one where pressures can be high and demanding. Common challenges experienced by construction workers include:

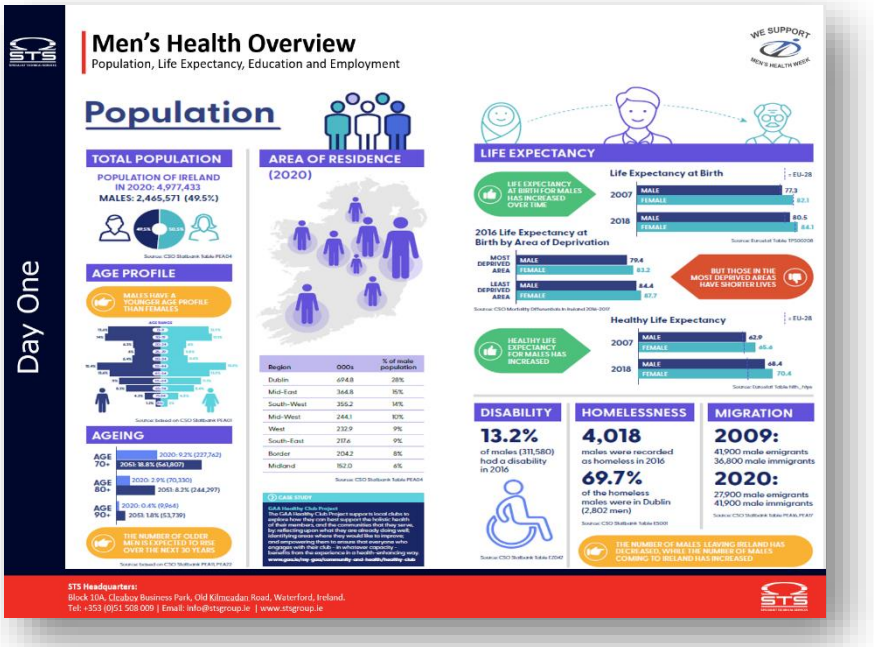
- Work pressures
- Working away from home
- Personal issues
- Poor diet & lack of exercise
- Addiction
- Anxiety
- Stress
- Depression
- Mental Health

MINDMATTERS
PROMOTING POSITIVE
MENTAL HEALTH IN STS.

Contractors shall implement a site health and well-being program to understand and support their workers' health and well-being. Contractors shall lead initiatives and specific awareness and understanding around the importance of good mental health.

STS Group run a mental health awareness and care programme called "Mind Matters" which promotes positive mental health in the work place. Mental health first aiders are becoming a more common addition to the provision of care on STS projects.

Contractors shall implement specific health promotion awareness programs during the construction project, as appropriate e.g. Men's Health Campaign.



Example of a "Men's Health" Awareness Campaign information leaflet

15.35 Silica Dust

Inhaling crystalline **silica** can lead to serious, sometimes fatal illnesses including silicosis, lung cancer, tuberculosis (in those with silicosis), and chronic obstructive pulmonary disease **(COPD).** In addition, **silica** exposure has been linked to other illnesses including renal disease and other cancers.

The **dust** created by cutting, grinding, drilling, sandblasting or otherwise disturbing these materials **can** contain crystalline **silica** particles.

The Company and Contractors are required to provide evidence that silica control methods reduce the exposure limit to below the PEL. This could be air monitoring compiled by the employer or a third party that is sufficient to indicate the exposure. The data provided must reflect conditions that are similar or worse than the employer's current work site conditions.

Scheduled industry air monitoring survey program: Exposure can be assessed through a dedicated air monitoring program where the employer generates its own data. Employers using this option are required to implement such a program when workers are exposed over the 25 µg/m3 action level over an eight-hour control period, and also to implement control methods.

95% of jobsite power tools should include dust removal systems

Example of Dust Prevention Tools

15.36 Significant Exposure to Temperatures

Heat

The combined effects of work, heat and loss of fluids and salt through sweating can lead to heat exhaustion and also potentially cause an accident. Symptoms may include:

- Tiredness
- Headache
- Nausea
- Muscle Cramps
- Fainting

To protect against heat exhaustion, erect a shelter / sun shade and take drinks to the work place. If there is anyone suffering from heat exhaustion, remove them to a cool place, allow to rest and be given plenty of fluids to drink when they are ready. If in doubt call an ambulance.

Management of heat or cold stress involves the job specific application of engineering controls, administrative controls, and protective equipment to eliminate or to mitigate the effects of extreme temperatures on personal. Resources identified to protect personal shall be provided in sufficient quantity & quality and maintained throughout the period of temperature extreme exposure. Work environments such as operational data centres significantly increase the risks of heat stress and other related issues if not managed closely.

Cold Temperatures

Prolonged exposure to extremely cold temperatures can often result in cold stress which includes fatigue and mild to serious health issues such as increased risk of incident/injury, hypothermia frostbite/trench foot and other long-term health effects.

Other serious safety risks can become more likely as symptoms, even when mild. These may lead to various incidents as cold muscles are more likely to strain and sprain, and mistakes or incorrect actions may be taken where there is a lack of either mental or physical co-ordination.

Working in extreme cold environments increases risk to worker's health and safety. Where practical, consider the following solutions when working in extreme cold working environments:

- Schedule the work to the conditions
- Train workers to work safely in the conditions
- Create safe systems
- Provide appropriate equipment
- Provide suitable PPE for working in cold temperatures

All projects that identify the potential for significant temperatures be it hot or cold must ensure that appropriate risk assessments are in place before the work commences.

16 NON-COMPLIANCE AND DISCIPLINARY ACTION

Consistent with the STS Mission Zero programme, the project will implement a "just culture" when managing health and safety non-compliances that occur on- site. Non-compliance by a Contractor or Contractors workers with the health and safety requirements outlined in this document will, in the first instance, be reviewed and assessed by the Construction Manager and appropriate action(s) taken. The Construction Manager will issue a Non-Compliance Report to a Contractor found to be in non-compliance with the STS construction health and safety requirements and/or found to be in breach of a national health and safety legal requirement.

The STS Health and Safety Induction outlines a list of health and safety non-compliances (see below) that will result in immediate removal of a worker from site. In all circumstances requiring disciplinary action, the person's employer shall manage and issue the disciplinary actions as per its company procedures.

Behavioural Code Chart (Note the chart is given as a guidance document and is not to be misinterpreted that this is a full list of all possible behaviours) The site management will issue disciplinary action as it sees fit after appropriate consideration has been given to the incident.

CATEGORY – GOOD BEHAVIOUR	CATEGORY – YELLOW CARD	CATEGORY – RED CARD STRAIGHT OFF SITE
Good Permit implementation (Hot works and LOTO etc).	Not working in accordance or without required permit.	Unsafe Work at Height
Proper & full use of PPE required for task from risk assessment.	Interfering with safe use of plant / equipment e.g. interlocks, handrails	Working above others without adequate exclusion zone
Detailed and logical SSWP / SPA implementation.	Putting graffiti on building walls, toilets or abusing welfare facilities	Use of combustion engines internally, without control measures.
Use of the SOR system.	Leaving an area without securing with barriers / gates e.g. excavation, lift pit.	Use of plant or equipment without correct training.
Observing access routes and exclusion zones.	Using damaged electrical leads, power tools or transformers.	Working on **live** electrical or mechanicals systems/circuits without approval or without the necessary control measures
Completing task as per training received.	Working on site without reporting to site office or being inducted.	Unauthorised entry into exclusion zone where a serious risk is present
Maintaining organised work station.	Dangerous driving, misuse of plant / speeding on site.	Falsifying training / plant / equipment records.
Going beyond his own duties to promote a safe site.	Unsecured storage of materials on roof, decks or other surfaces.	Being under the influence of alcohol or drugs.
Continuous good performance and behaviour on site	Using a mobile phone while operating plant or unauthorised use of phones	Not using toilet facilities provided on site
Good use of task specific PPE	Poor housekeeping of work area	Completing works which puts yourself or others in danger of being injured or causing an incident.
Good use of barriers and signage. Work area set up to a very high standard	Working without method statement and / SPA.	Smoking outside of a designated area
Good mentoring to apprentices and juniors on the job	Not using the necessary PPE	Unauthorised entry to a confined space or other such safety critical task

17 ENVIRONMENTAL & SUSTAINABILITY

17.1 ENVIRONMENTAL & SUSTAINABILITY STANDARDS

All STS Group business units hold registration to ISO 14001:2015.

All Contractors who work for STS Group should work in compliance to and align with our environmental standards if the trade contractor doesn't already have ISO 14001:2015 standard in place. The following sections herewith in this Environmental section should be complied with by all trade contractors working with us on our projects.

qualityaustria
Succeed with Quality

CERTIFICATE

This certificate is only valid in combination with the main certificate no. QSU-00052/1

Quality Austria - Trainings, Zertifizierungs und Begutachtungs GmbH awards this qualityaustria certificate to the following organisation:

Dussmann

Specialist Technical Engineering Services (STES) Unlimited Company
Block 10A, Cleaboy Business Park
Old Kilmeaden Road
Waterford X91 PH9A
Ireland

Design, sales, engineering, assembly, installation, commissioning, modernisation, refurbishment, repair, maintenance and other services for electrical, instrumentation, mechanical and associated systems

The validity of the qualityaustria certificate will be maintained by annual surveillance audits and one renewal audit after three years.

This qualityaustria certificate confirms the application and further development of an effective

QUALITY, ENVIRONMENTAL, OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM
complying with the requirements of standard
ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

Registration No.: QSU-00052/4
Date of initial issue: 27 June 2024
Valid until: 26 June 2027

qualityaustria
IQNET

Vienna, 27 June 2024

Quality Austria - Trainings, Zertifizierungs und Begutachtungs GmbH,
AT-1010 Vienna, Zelinkagasse 10/3

Mag. Christoph Mondl, CEO
Mag. Dr. Werner Paar, CEO
Ing. Christoph Baumgartner, MSc, MBA, Authorised representative, management Customer Service Center

The current validity of the certificate is documented exclusively on the Internet under http://www.qualityaustria.com/en/cert

All sites and contractors will:

Comply with all relevant environmental legislation, avoiding prosecutions for the contravention of environmental law and regulations for the jurisdiction that you operate within for STS Group.
Raise environmental awareness throughout the Site Management Team and subcontractors by means of regular environmental tool box talks, newsletters, environmental campaigns and awareness sessions. Implement best in class standards for environmental and sustainability on all projects.
Implement suitable and sufficient controls to achieve zero pollution incidents (emergency spills, noise / nuisance, water contamination, waste management issues) whilst maintaining an operational work site.
Implement the waste hierarchy:
prevent waste where we can; reuse materials until we can't use them again; recycle waste where reasonably practicable; recover waste (e.g. energy recovery); and only dispose of waste if no other options within the hierarchy are possible.
Identify and recognise all protected flora, fauna and wildlife that may potentially be affected by site activities. All sites should instigate appropriate mitigation measures to ensure adequate protection and that minimum disturbance is caused.

Report any environmental incidents or spillages immediately to STS Site Management.

Mission Zero – Environmental Awareness

One of our 12 Life rules in STS is promoting Environmental Awareness within the Group and our supply chain.

Our goals are:

- Prevent pollution and protect the natural environment from harm and damage as a result of our activities.
- Ensure all our activities are carried out in compliance with current environmental legal, regulatory and other compliance requirements.
- Increase our resource efficiency.
- Improve our waste management practices.
- Monitor and check our environmental performance.
- Work in consultation with our staff, supply chain and customers to improve and enhance their level of environmental awareness as well as to initiate environmental improvement measures.
- Create a culture where environmental awareness & sustainability are embraced by everybody.

17.2 Project Environmental Management

STS have a duty to construct the project with no negative impact on the community and environment and will aim to enhance both. In our aim to be a considerate constructor we aim for best practice and achieving a standard beyond statutory requirements. The five criteria for us to be a considerate constructor are:

- Enhancing the Appearance
- Respecting the Community
- Protecting the Environment
- Securing Everyone's Safety
- Caring for the Workforce

At the project planning stage, the Aspects & Impacts Register (EV01) is populated to identify the significant project environmental impacts and aspects. Projects must ensure the significant environmental risks are suitably controlled.

The common project environmental risks are detailed within the aspects and impacts template. The identification and effective management of activities with risks to the environment needs to be planned, organised, controlled, monitored and reviewed.

All persons attending a site, whether visitors, employees or self-employed, should be informed of the risks together with the preventive and protective measures established, so that they understand what they need to do.

Environmental permit to work systems to protect environmentally sensitive areas on site (e.g. waterways) will be instigated when required and records will be maintained where applicable to the scope.

STS Group recognises that waste management and storage / handling of fuels are high risk activities and therefore will be managed with the utmost importance.

17.3 Site Accommodation

When selecting site accommodation, welfare units and offices consideration and preference should be given to environmentally friendly units and energy saving measures applied at all times within the units.

When locating site accommodation, consideration should be given to minimising visual impact and the least amount of disruption as possible to the community.

Consideration should also be given to the type of foundation to be used for temporary accommodation, to avoid disruption of the existing environment, use of areas of hard-standing where possible. Connection of services and other ancillary requirements should be completed with care and consideration. On project completion the area should be returned to pre-existing conditions or according to contract / Client requirements.

17.4 Operational Control

This section details common project controls required for foreseeable aspects and impacts. Additional project specific control measures must be included in each HSE plan or aspects and impacts register.

Consideration should be given to planning conditions and environmental statements, Client specific pre-construction information, local authority construction codes and similar documentation.

A. Noise and Vibration

Excessive noise and vibration not only represents a major hazard to site workers, but can annoy neighbours and also disturb wildlife. STS Group and contractors will control and limit noise and vibration levels so that affected properties and other sensitive receptors are protected from excessive noise and vibration levels associated with construction activities.

Best Practical Means (BPM) will be employed which will balance noise and vibration against the works to be completed. The following factors will be considered:

- Proximity to residents
- Duration of the works
- Time of day the works are to be undertaken
- The engineering practicability and safety

Working hour restrictions that have been placed on the project will be adhered to. Night time works will only be undertaken where there is no alternative. Noisy night time works will be undertaken with extra vigilance to avoid inadvertent excessive noise.

The noise control hierarchy will be implemented - Eliminate > Substitute > Isolate > Control – to minimise the effect of our operations and plant and machinery on neighbours.

Where works adjacent to sensitive receptors are unavoidable, the construction method utilised will be chosen to minimise noise and vibration.

Where possible, noise and vibration will be controlled at source. Plant shall be positioned so that emissions do not cause nuisance to neighbours or sensitive receptors.

Where noise cannot be avoided, screening and acoustic enclosures will be utilised to minimise noise transmission off the construction site. Cut off trenches will be created where excessive vibration is likely to be transmitted off site.
The site layouts should be created and maintained to avoid creation of unnecessary noise and vibration, e.g. haul routes regularly inspected and maintained
Where works are likely to cause disturbance to neighbours or other sensitive locations noise / vibration monitoring will be carried out to ensure effects are measured. Additional controls will subsequently put in place should any issues arise. Background readings will be undertaken in these circumstances so ongoing monitoring can be assessed against noise levels prior to works commencing.

B. Dust

As well as causing a nuisance to neighbours, dust can lead to both health issues to persons on and off site, and can have adverse ecological impacts. Potential sources of emissions must be identified and appropriate controls applied to eliminate or minimise effects on neighbours and other sensitive receptors.

Where possible, dust creating activities will be completed away from sensitive receptors e.g. cutting of concrete materials. The following control measures will be implemented as a minimum:

- All dust-producing activities will be dampened down, preferably at source
- Dust controls will be planned prior to demolition and maintained during demolition
- Debris netting will be utilised during potentially dusty demolition and construction activities

- Hard standing will be provided as early as possible to provide a running surface for vehicles so that it is easier to control dust emissions
- Wheel wash facilities will be provided where mud is likely to be transported onto the public highway, this will be combined with road sweeping to reduce the possibility of dust even further
- Haul routes will be regularly damped down with mobile suppression systems and regularly cleaned
- Maximum speed limits of 5mph on unsurfaced haul routes and work areas and 10mph on surfaced haul routes and work areas will be imposed
- All vehicles carrying loose or potentially dusty material to or from the site are to be fully sheeted
- Drop heights will be minimised from conveyors, loading shovels, hoppers and other loading or handling equipment, additional water suppression will be utilised where possible
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction
- Vehicles will be well maintained to minimise release of particulate matter through the exhaust
- Carry out regular inspections to monitor dust levels and the effectiveness of any suppression in use
- Dust monitoring will be carried out where dust is likely to cause potential nuisance or damage to adjacent sensitive receptors. The results of this monitoring will be assessed against background readings to determine any effect of our works on dust levels

This list is not exhaustive and additional measures detailed by the Client, planning conditions and previous environmental statements will be included in this section.

C. Waste

Waste can have significant effects on the environment. Waste on site will be managed in accordance with the waste hierarchy: Eliminate > Reduce > Reuse > Recycle > Recover > Dispose.

Waste management contractors will be selected to help STS Group achieve its goals, increasing reuse and recycling rates, and reducing waste sent to landfill.

A Site Waste Management Plan (WMP) must be completed for all waste and non-waste movements and maintained as a live record in folder or alternatively STS and supply chain will work in accordance with the clients WMP.

Where waste is produced, and where possible, reports will be requested to show the actual tonnage of waste produced and the breakdown of how this waste was dealt with, e.g. diversion from landfill rate. Offsite prefabrication should be explored where ever possible and where possible, precast or pre-cut materials to eliminate waste creation on site.

Procedure SOP 302 Waste Management provides further detail on managing waste.

Waste Storage:

Waste will be stored to prevent its escape and will not be stored near sensitive receptors.

Hazardous waste will be stored separately from inert and non-hazardous waste, and different hazardous waste will not be co-mingled.

All waste containers will be signed to show the accepted waste stream.

Where feasible, different waste streams will be segregated to aid in maximising reuse and recycling rates.

Waste Disposal:

- Carrier licenses will be obtained and checked for all companies who remove waste from site.
- Full environmental permits, exemptions or other evidence will be obtained and checked to ensure that disposal locations can accept the waste type to be sent there, and in the quantity required.
- All waste transfer notes / hazardous waste consignment notes are to be checked before signature to ensure all required information is recorded before the waste is removed.
- All waste duty of care information and waste movements will be captured in *EV 08 Site Waste Management Plan*.

D. Materials

The construction industry is a major consumer of natural resources, this use can be minimised through the consumption of recycled materials, and the effects minimised by using sustainably sourced materials. Also the way materials are used and stored can have an impact where these are damaged and need to be replaced.

- Where possible, recycled or secondary aggregates will be used to avoid the use of virgin aggregate.
- Products with a recycled content will be used in preference to those without, where possible.
- Locally sourced materials will be used preferentially, where this is economically feasible.
- Where specification allows, the use of cement replacements will be investigated to lower the embodied carbon or concreting operations.
- Only timber that is from a demonstrable sustainable source will be used. Delivery tickets will be on file with each line item stating whether it is from an FSC / PEFC source and referencing the chain of custody certificate number.
- Materials vulnerable to damage through the weather / vehicle movements etc will be stored in designated areas and suitably protected.

E. Ground and Water Pollution

If works are not planned properly, construction activities have the potential to cause pollution to the land and water environments.
It is an offence to cause or knowingly permit any solid, noxious or polluting material to enter controlled waters unless consent by the environmental authority has been issued.

- Where information on existing ground conditions is not already available, investigations will be undertaken to determine the existing conditions of the site, and any contamination already present.
- Where required, a remediation strategy will be implemented to deal with any existing contamination.
- Areas of known contamination will be fenced off and access only made available to authorised persons.
- Where contaminated arisings need to be stockpiled, these will be placed on and covered by a polythene liner or similar to prevent cross contamination with the underlying ground.
- Details on fuel / oil / chemical storage can be found in the following sections.
- Where dewatering of excavations is required, this will be carried out using best practice.
- When pumping anything other than clean uncontaminated rainwater, a settlement tank is to be used to remove suspended solids and if required, hydrocarbons.
- Fuel / oil and chemical storage along with all refuelling will take place at least 10m away from water courses or surface / foul drainage.
- Concrete washout will be undertaken into a lined skip or pit and will not take place within 10m of a watercourse or surface / foul drainage.
- Wash waters from wheel washing will not be allowed to enter water courses or drainage.
- Controls to prevent uncontrolled runoff into watercourses will be put in place and agreed with the Environmental Authorities where required.

F. Ecology

Construction can have significant and irreversible effects on species and habitats both on and off site. Sites will manage works to minimise any ecological effects, and where possible enhance the ecological condition of the site.

- Documentation will be reviewed to ensure sufficient information is available to manage ecological issues, and where necessary, further survey works will be undertaken.
- Where protected species are identified on site, mitigation requirements of ecology surveys will be briefed to the workforce and fully implemented on site.
- Retained vegetation will be fenced off, appropriately signed and unauthorised entry to the area prohibited.
- Materials and plant will not be stored under the canopy of retained trees.
- If invasive species are identified after works have begun, works will cease, the area will be fenced off and the HSE Manager contacted.

G. Energy Saving Measures

Energy is vital to nearly all aspects of our daily lives, but we rarely stop to think about how or why we use it. As the price of energy continues to rise, now is the ideal time to consider what you can do to be more energy efficient. There are many simple ways to use energy more efficiently that will save money and benefit the environment.

We have outlined a series of checks and measures that will reduce our impact on the planet and promote a culture of energy saving becoming second nature:

- Select energy efficient methods for heating site cabins and welfare.
- Purchase energy rated appliances – refrigerator, dishwasher etc for welfare areas.
- Have heating systems on timers and heating stats.

- Have a plan in place for someone switching off appliances etc at the end of shift.
- Configure your computer to "energy saving" mode in which it will automatically change to the state of low consumption.
- Switching off the screen can save even more than just letting the screen saver run.
- Turning your computer off at night instead of leaving it on will save on average 25% of its annual energy bill. Remember you should turn off your computer whenever you are not going to use it for more than an hour.
- Using bicycles to travel to work. Promotion of the cycle to work scheme.
- Promotion of more teams calls business meetings to replace travel. Nationally within each country but particularly with a view to reducing airline travel.
- Don't leave vehicles running unnecessary.
- Promote the use of electric cars or hybrids where support structures exist for charging.

17.5 The Storage & Handling of Fuels, Oils & Chemicals

The storage of fuels and oils is to be strictly in compliance with the local regulations. This applies to project controlled storage, and that of our subcontractors.

The key criteria for storage are:

A. Petrol

- The maximum size of the container should be 10 litres
- The containers should be suitably constructed and adequately labelled
- Containers should be stored in the fuel store within the site compound
- Ideally the storage place should be more than 6m from the nearest building, highway or footpath
- Any storage area should be bunded or the fuel store must be leak-proof
- When used remotely on site, to fuel pumps or generators, containers should be placed on a drip tray and a spill kit must be on hand in case of spillage
- Drip trays must be emptied and cleaned on a regular basis

B. Diesel

- Diesel stored in a tanker / bowser shall be clearly labelled and locked when not in use
- All tanks and bowsers must be fully bunded, the bund must have 110% capacity of the fuel stored in the tank
- When a diesel bowser is used on site there should be a spill kit on hand in case a spillage occurs
- When diesel is stored on site in small containers they should be adequately constructed, correctly labelled, and placed on a drip tray to contain any spillage that may occur and protected from impact damage
- Diesel must never be decanted into a container that is not specifically designed to store it

C. Refuelling Procedure

This procedure outlines the steps to be taken when refuelling on site:

- No plant or machinery is to be refuelled within 10m of any watercourse / drain without a specific risk assessment and method statement being in place
- Small plant / equipment must be refuelled using a funnel to prevent spillage
- Where possible, all plant must be taken to the main fuel tank for refuelling. For large or stationary plant and equipment a bunded fuel bowser shall be filled from the main tank in order to distribute the fuel
- A spill kit or absorbent granules must be kept adjacent to the main tank, carried with any mobile bowser and kept in the machines to be refuelled. The operative carrying out the refuelling operations shall check this prior to transferring any fuel
- A drip tray / spill mat must be in place before any refuelling takes place
- Bowsers must be equipped with an automatic cut-out mechanism
- All ancillary equipment (hoses / pistols / valves etc.) must be stored within secondary containment
- When not in use, fuel tanks / bowsers must be securely padlocked to prevent accidental / deliberate discharge

In the event of a spillage, refer to SOP 304 Environmental Emergency Response.

17.6 Environmental Emergency Preparedness

Emergencies and disasters can happen at any moment and they usually occur without warning. When an emergency strikes, our immediate safety and prompt recovery will depend on the existing levels of preparedness amongst our staff.

Each employee has an important role to play in maintaining the company's emergency preparedness and safety.

An Emergency Preparedness and Response Plan should be compiled for your safety and also to minimise the environmental impacts which may be associated with an emergency situation.

The following information should serve to inform staff and contractors of STS of the ways in which individuals can work and make decisions to minimise our impact on the environment if an emergency happens.

STS is committed to protecting the environment and preventing pollution.

The incident preparedness and response flow chart is below.

Incident Preparedness and Response

STOP – CONTAIN – NOTIFY

STOP work immediately and prevent any more material spilling, eg right an oil drum, close valves.

Eliminate any sources of ignition eg switch off plant, extinguish cigarettes.

CONTAIN the spillage using bunds of earth or sand, drip tray or spill kits contents immediately.

Check the spill has not reached any nearby drains/manholes, watercourses, ponds and other sensitive areas. Bund drains/manholes to stop the substance entering the drainage system.

Ensure that any contents of a spill kit that is used are replaced.

NOTIFY your foreman/supervisor immediately giving the following information:
- Whether the substance has entered the drain/watercourse or is affecting the environment
- Substance involved
- Location
- Reason for incident
- Quantity involved
- Action taken

SPILLAGE TYPE

MAJOR	Cannot be controlled; pollution has entered, or could enter a drain or watercourse. Report to foreman/supervisor immediately.
MINOR	Can be controlled; pollution has not entered and "cannot enter" a drain or watercourse. Report to foreman/supervisor immediately.

FOREMAN/SUPERVISOR INSTRUCTIONS

MAJOR	Contain and report immediately to contact detailed below
MINOR	Clean up immediately using appropriate materials (Spill Kit, spill tray, granules, pads etc)

CONTACT NAMES AND NUMBER

Paul Kelleher HSE Manager	085 1401978
Environmental Protection Agency	053-916 0600

Write up a report of the incident to be retained in site records that should include the following:

- Date, time and location of spillage
- Substance(s) involved
- Action taken to contain
- Lessons to learn

18 QUALITY ASSURANCE QUALITY CONTROL

Both STS and the contractor where relevant is to ensure that an exemplary standard of quality performance is a core goal throughout the project and is reflected in its project activities. STS quality strategy is founded on the following key principles:

- Management commitment and leadership
- The establishment and maintenance of a positive open quality culture
- The continuous communication of quality related issues and matters
- The application of quality planning, execution and performance management tools
- The selection and on-going development of competent resources
- The selection and implementation of supporting tools, software and solutions

Mission Statement

- We are committed to providing a high-quality installation in accordance with our clients and project expectations.
- We are committed to right first-time installations.
- We aim for zero defects at client / CMT walkdown phases.
- We deliver high quality, fully traceable project handovers to our clients.
- Our quality culture works hand in hand with health in safety. We believe that if you are not doing it safely then you most probably are not doing it to a high standard. If you are not executing your installation to a high quality standard there is most likely room for improvement with your health and safety performance.

18.1 QUALITY PLAN

A project specific Quality Plan will be compiled for each project. The plan will outline all quality requirements and processes to be implemented on that project. The plan is compiled in accordance with the project specification, contract and ISO9001:2015. The plan is typically issued to the CMT / Client for review. The following roles of the STS project team must read and sign onto the plan to accept indicating their intention to follow its requirements.

Quality plans are typically used as the source document for internal and external quality audits and what the project is measured against.

18.2 INSPECTION TEST PLAN

A project specific Inspection Test Plan (ITP) will be compiled in accordance with the STS scope of work. Each test and inspection is listed along with a brief description of the tasks involved. The following is also detailed:

Frequency of Test / Inspection: How many times it is executed e.g. Cable Tests = All Cabling / Each time.

Verifying Document: Details of what document is used for evidence of the test.

Roles / Responsibilities: Details of the responsibility of each part e.g. STS, CMT, Client. Roles are abbreviated into:

Controls / Responsibilities Matrix		
D	Deliverable	Provide to the project CMT & / or Client
T	Test	Execute electrical / instrumentation testing
I	Inspect	Perform visual inspection
W	Witness	Attend the test and witness the test measurements
M	Monitor	Monitor that the activities are being conducted throughout project
R	Review	Review the test inspection records
A	Accept	Accept the inspection test records

18.3 Appearance & Conduct

Appearance and conduct of operatives is very important both on the type of projects we execute and for the type of client we work with.

- Always ensure your workwear & PPE is maintained as clean as is possible and practical. We understand the construction environments that you work in and workwear will be become dirty. But you must ensure workwear & PPE is kept professional looking and maintained.
- No slogans or funny terms to be written on PPE (hats or vests).
- Maintain professional conduct whilst on site and also in site welfare facilities and compounds.
- Treat all other site staff, employees and contractors with professionalism and respect.
- Ensure work areas, desks, storage areas, lay down areas etc. are kept clean and tidy.

18.4 Document & Project Control

Each project will set up the STS document architecture within the project cloud platform. Typically SharePoint is used by STS across all projects. The folder structure is pre-defined into Tender, Construction, Engineering, Quality, Health & Safety, Commercial, Procurement etc. All project related data must be saved into the applicable discipline folder. This is to ensure constant back up and also archived data upon project completion.

18.5 Material & Equipment Approval

STS only supply and install material and equipment that is in accordance with the project specification. All material and equipment enters the submittal process at pre-construction. Only items that have received an approved status will then be procured.

The typical submittal process of approval is :

Status A – Fully Approved – Proceed to Procurement

Status B – Approved with Comments – Procurement can proceed but only comments incorporated. Submittal must be revised to incorporate comments and re-issued to achieve Status A.

Status C – Rejected – Procurement must not proceed. Comments to be address or alternative to be sought.

18.6 Installation Quality – Benchmark

First time turnover of the installation work is critical. STS implement Benchmarks of First of Kind (FOK) to ensure there are clear samples of the required installation standard and method available to all operatives. These FOKs are the only version that will be accepted on inspection walkdowns.

Example of an on-site FOK

The installation item(s) will be made on site and inspected by STS QAQC team. The CMT & / or Client will be invited to inspect. The agreed installation will be photographed and documented by the STS QAQC team. This item now becomes a Benchmark or FOK and the only version accepted on the project.

FOKs are particularly important on our projects where repetitive items of installation is always part of our scope. For example; Bracketry, Cable Dressing, Glanding / Termination to Switchgear, Instrument Hook Up, Life Safety System installation etc.

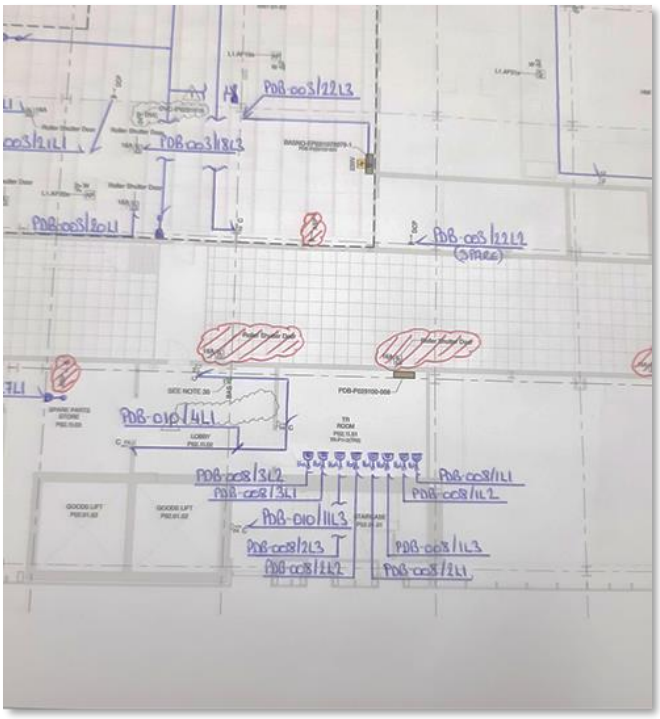
18.7 Redlining Project Documentation

STS continuously update project drawings, schedules and specifications throughout the course of the project.

Drawings are redlined by the project teams to capture any agreed changes to the Issued for Construction information contained on the drawing. Typically the following colour coding is utilised for hard copy redlining:

1. Red = Deleted Items
2. Blue = Additional Items, Equipment etc.
3. Green = Comments, helpful data etc.

The redlines are initialed and dated by the redliner for traceability by the QAQC department.



Example of a redlined drawing

Some STS projects utilise BIM360 software for the mark up of project drawings.

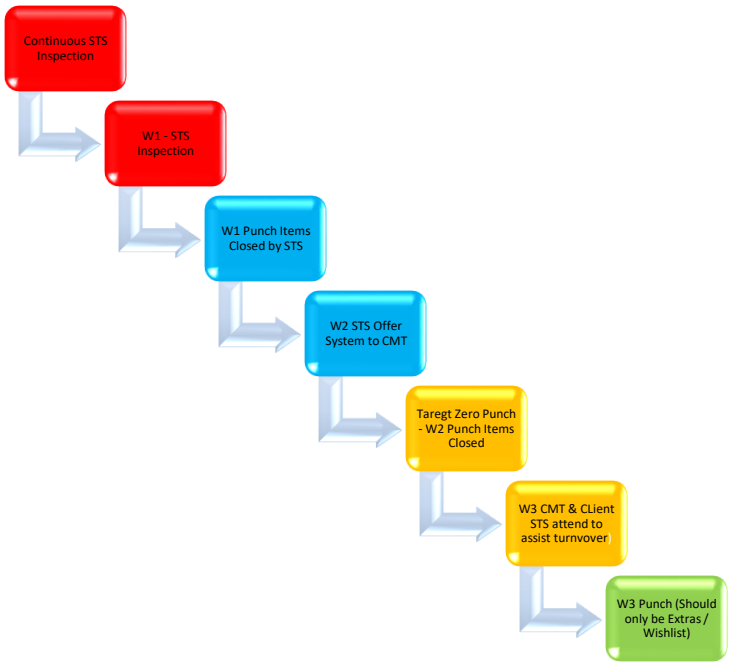
18.8 CONTINUOUS INSPECTION

STS project supervision continuously inspect the quality of the installation work by the site operatives. It is not just a task of the QAQC team to inspect the work. Continuous inspection drives down the number of punch items on the planned W1, W2, W3 inspection walks.

STS supervisors whilst on their daily walks interact with their installation teams. Operatives are stood down and the installation work is assessed. Issues are communicated to the operative and work continues.

18.9 PLANNED INSPECTION

Planned inspections are executed in order to handover / turnover systems within our scope of works. Following is the typical flow of these inspections on a project:



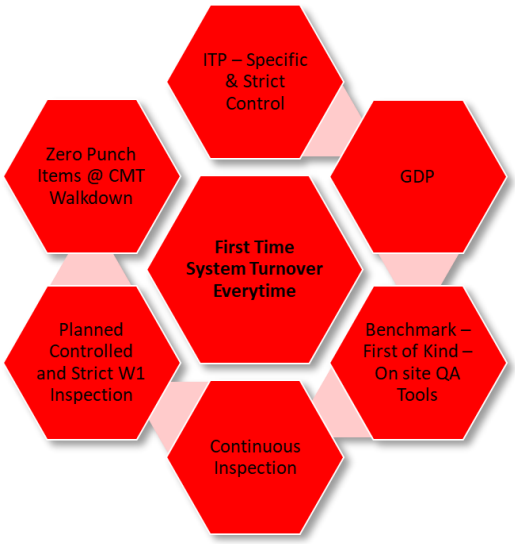
At W1 stage the STS QAQC project team will inspect the area or system. This is to ensure punches are noted and rectified prior to the CMT and Client inspections at W2 & W3. STS aim for zero punches at W2.

W1 punches are recorded in the STS punchlist system. Typically STS utilise punch software. Here the punch item is recorded, described, located on applicable drawing and photographed (where project permits photography). The punch is assigned to the STS system owner for closure. Punches are closed prior to the W2 walk.

STS QAQC department monitors punch records to watch for trends developing in repetitive punch items being recorded. Trends are actioned via QA Alerts, Toolbox Talks, Company Communications and seeking solutions that will eradicate re-occurrence.

18.10 First Time Turnover

STS strive for First Time Turnover of its installation works. Keys to First Time Turnover are:



18.11 Quality Communication and Incentive

STS regularly communicate the importance of quality via company communications such as;

QAQC Toolbox Talks – At least one per month is delivered on all projects. Topics and pre-compiled talks are available in our QMS global library. Topics are also decided by project QAQC team with relevance to on site conditions or issues.

QAQC Visuals – On site QAQC themed posters and Reference Notebooks.

Newsletter – Bi-Monthly containing QAQC content.

STS celebrate and incentivise high quality workmanship with project quality awards. A high quality installation or repeated high quality work by individuals is nominated and awards are presented.

18.12 Test & Measurement Equipment

All test and measurement equipment is fully calibrated and traceable to recognised international standards. Only STS or Sub-Contractor owned equipment will be used on the projects. All equipment must be registered with the following details retained and maintained; Model No., Serial No, Cal Date, Cal Due Date and Calibration Certificate reference No.

Each item of equipment must carry a label displaying Serial No. and Calibration Due Date at least.

STS equipment must be stored in controlled, secure environments to ensure its accuracy is maintained.

Equipment displaying signs of inaccuracy must be immediately quarantined before being sent for checking by an approved calibration provider.

18.13 Test & Inspection

STS test and inspect the entire scope of work installed on the project. Every test and inspection is documented using the applicable Inspection Test Record (ITR) document.

ITR templates required for the scope are issued to the CMT & / or Client as part of the pre-construction submittal process. Upon approval of the ITRs the QAQC department will build the Trade Turnover Packs (TTOPs) in advance of test and inspection tasks commencing on the project.

Some projects in STS from 2022 will utilise software for the execution of the inspection and test documents. This software allows for the execution of the test or inspection via a tablet out on the project and means no hard copy ITRs are required. The software produces PDF ITRs that are uploaded to the CMT & / or Clients platform.

18.14 Test & Inspection Operatives

STS carefully selects operatives to execute test and inspection duties based on experience and capability. Testing operatives are all put through the STS internal testing course which details the type of testing encountered within our industrial project environments. Testers will also receive any jurisdictional training or qualification required. For example: QC number in Ireland, NEN3140 Netherlands.

18.15 Internal Audit

STS regularly perform internal audits of our projects in order to ensure the requirements of the project quality plan and also this minimum standards document are being implemented. STS utilise software for the execution of the audits. NCRs are raised and are assigned to the relevant STS owner for closure within our pre-defined time frames.

Internal audit is essential to ensure we meet and achieve our own standards and to satisfy our project contracts and client expectation.

18.16 Certification

STS fully certify the installation work in accordance with requirements of the jurisdiction. At pre-construction we identify the requirements in order to ensure certification can be provided when required at MC or at defined project milestones.

All Life Safety Systems are fully commissioned and the corresponding certification forms part of the final handover to our CMT or Client. Also in this handover are full copies of the Inspection Test Records, typically divided into system boundaries on our projects.

All handover documentation is backed up into the STS project platform for archiving.

19 UNDERTAKING

NAME OF CONTRACTOR COMPANY:	
CONTRACTOR ADDRESS:	
PROJECT NAME:	

I/We acknowledge that I/we have read the foregoing Construction Minimum HSEQ Requirements document.

I/We undertake and agree that my/our employees and Sub-Contractors are to at all times observe and comply with the requirements outlined herein.

NAME:	
SIGNATURE:	
DATE:	
POSITION IN COMPANY:	

Notes:

This undertaking shall be signed and returned to the Construction Manager before commencement of work.

This undertaking is only valid for the duration of the particular contract for which it was signed. Any subsequent contracts require a renewal of the undertaking.