Health, safety, well-being and environment

Minimum standards

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1.0 Introduction

This document outlines the health, safety and environmental standards with which all personnel (direct and subcontractors) are required to comply with when undertaking works on tRIIO.

It identifies health and safety (H&S), environmental and quality requirements which are detailed within EHS legislation, Approved Codes of Practice (ACOP) and guidance produced by the Health and Safety Executive (HSE) and other authorities. Subcontractors must be able to demonstrate that they have appropriate health, safety, environment and quality management systems in place which follow the framework of OHSAS 18001:2000, ISO 14001:2015, and ISO 9001:2015. They should have monitoring and control processes to comply with these and the additional requirements set out in these standards.

If there is any doubt or misunderstanding of the content of this document, the contractor should consult with a tRIIO senior manager or a nominee for clarification. Any data that we collect is covered under the requirements of the General Data Protection Regulation.

There may be project or client specific requirements above and beyond this document, which where relevant you will be informed of separately. For reference, the health, safety and environment policy statements are provided in Appendix 1a and 1b.

2.0 Definitions and requirements

2.1 Definitions

- **tRIIO** – Contractor – An unincorporated joint venture between Morrison Utility Services and Skanska Construction UK Limited.
- **Subcontractor/supply chain** – Anyone who directly employs or engages construction workers or manages construction work. All of the terms that follow are referring to our supply chain: labour only, labour and plant contractors, package contractors, trade contractors, suppliers, specialist contractors, vendors, hirers and consultants engaged on any tRIIO site.
- **tRIIO site** – Any construction site, workshop, depot, stores, offices or any other premises wholly or partly under the control of tRIIO.
- **Site/project lead** – tRIIO’s most senior manager present on site or responsible for day to day operations.
- **Subcontractor supervisor** – The subcontractor’s senior person on site supervising the works.
- **Subcontractor’s operational team** – The subcontractor’s operational team actually undertaking physical work activities.
- **Sub-subcontractors** – Those having written a contract with subcontractor to carry out a portion of works.

2.2 Requirements

2.2.1 Subcontractors

- All subcontractors must have their safety, health, environmental and quality standards assessed prior to commencement of works. All subcontractors must be UVDB B2 verified or have completed the Skanska PQQ process. In accordance with tRIIO’s management system, all subcontractors who successfully complete this process, will be subject to a pre-commencement meeting for the project and added to the tRIIO
approved vendor list. Thereafter, subcontractors will be subject to monthly supply chain SHE forums, quarterly performance review meetings and supply chain audits.

- Subcontractors are responsible for assuring the competence of all sub-subcontractors in line with CDM Regulations 2015. All other policy procedures will apply.
- The subcontractor must have access to competent health, safety and environment advice, either in-house, or from a consultant. The subcontractor’s nominated safety advisor must be a member of IOSH and meet tRIIO’s competency requirements (minimum NEBOSH general or construction) with evidence of their competency and contact details provided at pre-qualification, and at the pre-commencement meeting.
- The subcontractor’s health, safety and environmental advisors are required to thoroughly inspect their works, with a minimum of two sites per month inspected or as directed by tRIIO. A copy of the report shall be provided to tRIIO and the H&S advisor once completed.
- The subcontractor’s management is responsible for immediately implementing the health, safety and environmental advisors recommendations and formally confirming a satisfactory close out to tRIIO’s health and safety managers in writing.

2.2.2 Sub-subcontractors

- Prior to works and at the pre-commencement meeting, subcontractors need to provide evidence of their assessment of the safety, health, environmental and quality competency of that sub-subcontractor.
- All sub-subcontractors will be approved in writing by tRIIO’s procurement team prior to commencement of works and at the pre-commencement meeting.
- If during works the subcontractor needs to employ additional sub-subcontractors, they need to immediately contact procurement for approval in writing.
- Any sub-subcontractor found working who has not been assessed by tRIIO will be immediately removed from site and any associated costs caused by such removal will be the responsibility of the relevant subcontractor.

2.2.3 Subcontractor forums

- A senior representative of the subcontractor must attend a health, safety and environment meeting on a monthly basis or as requested.

3.0 Skills, knowledge, experience and training (SKET)

tRIIO requires that everybody engaging on the contract/projects/sites are able to demonstrate the necessary minimum standards of health and safety skills, knowledge, experience and training. The following standard should be held by those directing, managing, supervising or undertaking operations on construction sites.

This requirement for individuals to demonstrate formal health and safety training is in addition to a demonstration of skills competency in the form of a EUSR card or CSCS card as appropriate to their role, as outlined in the Build UK accepted record scheme.

3.1 EUSR, CSCS card or affiliated scheme

- All personnel working on the gas network must hold a current EUSR card, for example, after having completed the one-day utility SHEA gas passport course.
- Internal works subcontractors require Gas Safe registration.
- Reinstatement subcontractors require NRSWA accreditation for the reinstatement of openings in highways.
• Personnel engaged in construction activities, not involved in work on the gas network, must hold either a EUSR card or CSCS card.
• These details are to be uploaded to BookIt prior to the tRIIO site induction and before commencing work on site.
• EUSR and CSCS cards must be carried at all times, available on request and will be subject to random verification with the card issuer.
• The most current version of the Build UK accepted record scheme can be found at http://builduk.org/information.

3.2 Core skills, knowledge, experience and training (SKET)

• tRIIO requires that all directors, managers, supervisors and operatives hold the correct level of EHS competence for their roles.
• The following details are the core SKET required for specific job roles. See Appendix 15 for more information.

3.2.1 Subcontractor directors

tRIIO requires subcontractors at director level (responsible for operations and health, safety and environment) to be able to demonstrate that they have the necessary skills, knowledge, experience and training to direct and lead health and safety strategy effectively. Evidence must be supplied to the contractor’s training team (tRIIO) within one month. The following standards are mandatory and apply to all projects/contracts/sites:

• IOSH directing safely (five years)
• Management level CSCS competence card in line with the Build UK health and safety training standard or affiliated scheme.

3.2.2 Subcontractor managers/site managers

tRIIO requires that subcontractors at manager level (responsible for operations, health, safety and environment) are able to demonstrate that they have the necessary skills, knowledge, experience and training to plan, manage, monitor and lead health and safety effectively. The following standards are mandatory and apply to all projects/contracts/sites:

• CITB Site Managers Safety Training Scheme (SMSTS)
• Appropriate CSCS/EUSR competence card in line with the Build UK health and safety training standard or affiliated scheme
• Internal works supervisors must be Gas Safe trained
• Reinstatement supervisors must have a NRSWA supervisor ticket.

3.2.3 Subcontractor supervisors/team leaders

tRIIO requires that subcontractors at supervisor/team leader level be able to demonstrate that they have the necessary skills, knowledge, experience and training to put people to work and monitor to ensure health and safety is effectively implemented. The following standards are mandatory and apply to all projects/contracts/sites:

• CITB Site Supervisors Safety Training Scheme (SSSTS)
• Supervisor level CSCS card or EUSR team leader card
• Internal works supervisors must be Gas Safe trained
• Reinstatement supervisors must have a NRSWA supervisor ticket.
3.2.4 Subcontractor operatives

tRIIO requires that subcontractors at operative level are able to demonstrate that they have the necessary skills, knowledge, experience and training to undertake their work with due regard for health and safety, for example, by holding an EUSR card. Further details can be found in the training matrix in Appendix 15.

3.2.5 Subcontractor drivers

- The subcontractor must ensure that drivers of LGV/commercial vehicles are supplied sufficient training to satisfy the requirements of driver Certificates of Professional Competence (CPC) training.
- The subcontractor must ensure all drivers are checked for their entitlement to drive, that they hold the correct vehicle license category and for any points accrued with the DVLA via their checking service, such as driver check.
- Support drivers must be qualified in the applicable area as defined in NRSWA, for example, unit 2 SLG competencies.
- Subcontractors must screen all drivers for fitness before employment and at five-yearly intervals from age 45, for LGVs only.
- Subcontractors must carry out an assessment after an absence of more than one month or after a shorter absence if it is likely that the illness has affected the worker’s fitness to operate workplace transport. This provides positive confirmation of fitness to drive.

4.0 Language

Workers who have English as a second language will only be permitted to work on site in compliance with the following guidelines:

- The worker can demonstrate that they have a basic understanding of both written and verbal English.

If the worker cannot satisfy the above, the following applies:

- The worker’s employer must translate the induction and deliver it in their mother tongue
- The worker’s employer must translate the risk assessment, method statement and briefings and deliver these in their mother tongue
- One English speaking worker who can communicate in the language of the group will be identified as a translator to a maximum group of four operatives.

5.0 Induction requirements

All persons working on site and regular visitors will attend a full tRIIO induction before they are permitted access to the site. Access will be denied to anyone who cannot demonstrate that they have been inducted and anyone found working without a tRIIO induction will be immediately removed from site.

5.1 New starters

Subcontractors working on tRIIO must upload the following onto the BookIt system in advance of an induction:
• Original training cards/certification
• National insurance number
• Home address
• Emergency contact details
• Driving licence
• Health surveillance and safety critical worker evidence
• Copy of completed DBS check (will need birth certificate and passport, or copy of utility bill)
• Evidence of face fit testing for all tRIIO staff and subcontractors, performing activities that require the use of RPE or BA.

All new starters will be subject to drugs and alcohol testing.

5.2 Re-induction

Any person who has been inducted but not attended site for three months or more shall be required to attend a re-induction.

5.3 Visitors

All visitors to site must attend a site induction prior to access and must be accompanied by an individual who has received the tRIIO induction at all times.

6.0 Supervision

Subcontractors are required to provide supervision for their own operatives. The tRIIO standard for supervision is a ratio of one supervisor/team leader to a maximum of 12 operatives. However, dependent on the risk of the work activity, it may be determined that a supervisor/team leader should be responsible for fewer than 12 operatives.

7.0 Culture – Care for Life

‘Care for Life’ (CfL) is about creating a culture of care and concern for one another on our sites to ensure that everyone goes home safely every day.

A four-hour ‘CfL’ orientation is mandatory before the individual has been on the contract for three months. For persons likely to be on the contract less than three months, or for short-term repeat visitors, attendance will be at the discretion of the area manager.

In addition, all subcontractor site managers (or equivalent) must attend a two-day ‘supervising’ CfL orientation within three months of completing the four-hour CfL orientation.

Senior operation managers from the supply chain with responsibility for health and safety will be required to attend a CfL orientation within six months of commencing work for tRIIO. tRIIO runs regular CfL events (stand up discussions, workshops, forums and conferences). It is expected that subcontractors visibly support these events and release their employees to attend and provide a senior manager to support the events.
8.0 Health and well-being

8.1 Health risk assessment

The subcontractor will be responsible for the cost and organisation of health surveillance and have competent occupational health provision in place. They will maintain fitness-to-work records for their employees and be responsible for managing individuals with health conditions.

The subcontractor will provide a baseline medical health risk assessment detailing the statutory health surveillance and safety critical medical assessment requirements for their staff, including reassessment timescales which should include but may not be limited to:

- Eye sight test
- Lung function checks
- Audiometry checks
- Hand arm vibration exposure checks
- Dermatitis/skin checks
- Musculoskeletal checks
- Colour vision checks where applicable to trade.

They should also provide a copy of the Safe, Effective and Quality Occupational Health Service (SEQOHS) accreditation certificate at their pre-commencement meeting which will be held on record as evidence of a suitable Occupational Health (OH) provider.

8.2 Health surveillance

Workers defined by tRIIO’s occupational health standard as Category 1 (on the tools) must be included in a health surveillance programme (Appendix 2). In the first instance, the health surveillance provider will carry out a baseline medical assessment of all operational employees. The frequency of reassessment will be risk-based and ensure compliance with regulatory requirements regarding reassessment timescales.

The evidence required is a register of the at-risk population, with testing and recall dates to demonstrate that they are managing the health risks.

8.3 Safety critical worker assessment

Workers defined by tRIIO’s occupational health standard as Category 2 (safety critical workers) must be included in a health assessment programme.

The evidence required as proof of suitability to undertake these duties will be a copy of a fitness-to-work certificate issued from an appropriately qualified occupational health provider, who should be SEQOHS accredited: https://www.seqohs.org/.

Evidence of fitness to work should be provided at tRIIO inductions and the individual should be reassessed by the OH provider if their health changes significantly, for example, after injury, diagnosis of a condition requiring surgery or ongoing treatment/medication.
8.4 Drugs and alcohol testing

tRIIO may undertake testing for evidence of drugs and alcohol. Screening will be carried out by a recognised medical testing service that uses proven scientific means under a confidential chain of custody arrangement. This might happen:

- Prior to commencing work on a site, for example, at a tRIIO induction
- Via unannounced/random tests – this covers all employees, workers, subcontractors, agency staff and visitors
- Post incident – in the event of an accident that causes or potentially causes injury, loss of life, or damage to property, the employee, worker, trade contractor or agency staff
- For cause – any employee, worker, trade contractor or agency staff suspected to be unfit for work because of drugs or alcohol will immediately be removed from site or stopped from commencing work.

A failure to undertake drug and alcohol testing when requested will result in removal from the contract. Appendix 3a and Appendix 3b contain the drugs and alcohol policies detailing prescribed limits for Skanska and Morrison Utility Services.

8.5 Working time

A procedure for fatigue management is being reviewed, as everyone needs to be suitably rested before work and have adequately planned their working week. The subcontractor will provide records of working time and when requested, will demonstrate management of working time and compliance with the relevant working time legislation.

8.6 Out-of-hours working

Out-of-hours work will be carried out in line with tRIIO’s out-of-hours working procedure. All out-of-hours working must be agreed by prior arrangement with a tRIIO manager (Appendix 18).

9.0 Controls

9.1 Risk assessment and method statements (RAMS)

All subcontractors must provide detailed RAMS to tRIIO, a minimum of 14 days in advance of the works, including:

- Task specific risk assessments
- Task specific method statements (where required)
- Manual handling assessments
- Noise assessments
- Vibration assessments
- COSHH assessments
- Lifting plans
- Health assessments
- Emergency and rescue plans.

Works will not start until tRIIO has confirmed that it has reviewed, and is satisfied with, the safe system of work submitted.
The subcontractor must provide evidence that all who are to carry out the works on site have been adequately briefed and records of attendance kept for review and audit. Should the subcontractor introduce new employees during the work activity, the same procedure must apply.

All subcontractors must provide, where required, adequate rescue plans within their RAMS, where their operatives will be working on locations where an emergency rescue may be necessary – for example, in confined spaces, deep excavations, or if working at height. Equipment to implement the plan must be provided, inspected and maintained. A schedule of rescue drills should also be in place. Developing an adequate rescue plan will require liaising with tRIIO in advance.

9.2 Pre-task briefing

To ensure working teams are safely put to work on a daily basis, subcontractor supervisors are required to deliver a pre-task briefing to the teams for whom they are responsible.

The following is a basic guide:

- Delivered at the beginning of every shift and new task, or following a change in work process or when there is a deviation from the plan
- One briefing per task (including tasks where there is a change in the working environment)
- Carried out by the supervisor/team leader
- Record kept by the supervisor/team leader
- Records submitted to tRIIO on request.

tRIIO site managers will also carry out pre-task briefings as required with the subcontractor’s personnel.

9.3 Emergency arrangements

9.3.1 Fire prevention

The contractor shall complete the following tRIIO appointments:

- Fire and emergency coordinator
- Fire warden(s)
- Hot works responsible person.

In addition to complying with the Regulatory Reform (fire safety) Order 2005, it is also a requirement that contractors comply with the HSE guidance ‘Fire Safety in Construction’ HSG 168”. You should have the following:

- A hot work procedure in place
- The storage of gas and flammable liquids inside, under and on buildings, approved by the operational management team through the method statement review process
- Fire extinguishers provided on vehicles - 2 x 2kg
- Fire extinguishers provided for live gas works - 2 x 9kg
- Designated fuel containers.
In addition, the following are prohibited:

- Deliberate burning of material on all projects, offices, depots and factories
- Jubilee clips connecting flexible gas supply hoses
- Halogen lamps
- Smoking – except in designated areas.

### 9.3.2 First aid provision

All subcontractors must ensure first aid provision for their workforce, based on a suitable assessment of the risk. The assessment must detail the arrangements in relation to both trained first aiders and first aid supplies. All first aiders must have completed, as a minimum, Emergency First Aid at Work training.

### 9.4 Permits to work and Safe Control of Operations (SCO)

Permits to work are used to control high risk activities. Permits to work will normally be issued and controlled by tRIIO. However, the tRIIO manager responsible may delegate the issuing of permits to a competent subcontractor. This appointment must be in writing and the relevant contractors shall be notified of the delegation.

Safe Control of Operations (SCO) is a national process recognised by all gas network owners – distribution and transmission. It controls activities that pose significant risk to process safety and security of supply around gas operations and has specific training, qualification and competency needs, as well as a formal nomination process.

The SCO suite of documents sets out roles and responsibilities, training and competency requirements as well as audit and records requirements.

SCO identifies a number of specific roles, including those of an authorising engineer and competent person.

For guidance on the use, application and the competency requirements for authorising engineers and competent persons, please refer to the SCO suite of documents:

- SCO1 Management Procedure for Safe Control of Operations
- SCO2 Management Procedure for the Issue of Permits to Work and Forms of Authority

### 9.5 Inspections and audits

tRIIO will undertake a variety of health, safety, environment and quality inspections and audits, including but not limited to:

- Weekly site inspections
- Senior management site safety visits
- Internal audits
- External audits.
Subcontractors must undertake recorded inspections of their work site. The frequency of these inspections will be agreed at the pre-commencement meeting. For example, on mains replacement projects, this would be no less than one inspection per site, per week. Copies of the reports from the inspections must be provided to tRIIO once completed.

The subcontractor’s senior management/directors must undertake a minimum of two site visits per month, the outputs from which must be returned to the tRIIO operations manager. A list of the people in scope for these site visits will be agreed with the tRIIO area manager at the pre-commencement meeting.

The subcontractor’s health and safety advisor (qualified to NEBOSH general, as a minimum) will undertake a minimum of two recorded site visits per month or as directed by tRIIO. A copy of the report shall be provided to tRIIO and the health and safety advisor once completed.

9.6 Working at height

9.6.1 Scaffolding

- All scaffold contractors will be members of NASC.
- tRIIO requires that any scaffolding contractor contracted to work on tRIIO employs a full-time supervisor, who as a minimum holds a valid Construction Industry Scaffolders Record Scheme supervisor card (CISRS), in addition to any certification required for a site manager/supervisor.
- Scaffolding will be erected to TG20 wherever feasible. A compliance sheet must be provided for all scaffolding constructed to the requirements of NASC TG20 to demonstrate compliance with TG20 and BS EN 12811. For more information, see the NASC website at https://www.nasc.org.uk/tg2013/.
- Where a non-TG20 scaffold design is required, the tRIIO temporary works process will be followed. A scaffold design must be submitted by the subcontractor to be approved by a competent tRIIO temporary works designer.
- Scaffolders will work in accordance with SG4:15.
- Preferred access is always via a staircase system, for example Haki or Layher, or something similar. Ladders will only be permitted as a means of access from one level to another where it is proven that a staircase system is unsuitable.
- Self-closing ladder gates to be used.
- Scaffold edge protection will be installed by an advanced scaffoldor (CISRS).
- A recorded inspection will be done every seven days by a competent person who holds, for example, a CISRS scaffold inspection training scheme card or equivalent, with records provided to tRIIO. In addition, all scaffolds will be tagged, for example, using a Scafftag.
- After erection or any change, scaffolds must be initially inspected by an advanced scaffoldor prior to first use. Records of handover must be provided to tRIIO.
- Gin wheels must be fitted with an automatic brake.

9.6.2 Ladders and stepladders

The following apply to the use of ladders and stepladders:

- Their use is limited to access/egress only, and where it is impractical to provide a working platform such as scaffold, mobile tower, podium or MEWP
- Where a ladder is the only option for use as a working platform, it will be used with a standoff device, outriggers, anti-slip device and a ladder harness
• Aluminum ladders are not to be used in live switch rooms or in any location where live electrical facilities are present
• They must be made of non-conductive material where live electricity is present
• They must be individually identifiable
• They must be inspected prior to use and weekly inspections must be conducted and a record kept by a competent person
• All ladders which are part of access to a scaffold must be installed and tied off by a competent scaffoldor in line with SG25. This includes the use of ladders under any erection phase
• A ladder permit system may be employed
• HSE guidance ‘safe use of ladders and stepladders’ (INDG 455) should be followed.

9.6.3 Open edges and openings

• All openings must be guarded or covered using an appropriate system.
• Staircases will be installed with an integrated handrail or a proprietary handrail system.
• Excavations will be guarded with edge protection to the standard as set out in Appendix 19.

9.6.4 Falling materials and tool tethering

All items used at a height from which they could fall will be used and stored in a suitable manner to prevent the possibility of items falling. Full height containment must be installed from the floor to the soffit level to prevent items falling from the edge of all external elevations/scaffold structures above the first storey upwards.

All tools used at height where there is a risk of the tool falling further than the working platform the user is on, should be secured to a suitable anchorage point using specifically designed tool tethering equipment.

Where items cannot be suitably secured during use or storage, exclusion zones must be created, demarcated, labelled and maintained until the risk of the item falling has been removed. These must be suitable to contain any falling item based on an assessment which takes account of what might fall, from where, from what height, and its potential to be deflected if striking a structure.

9.6.5 Mobile elevating work platforms

All work involving the use of a Mobile Elevated Work Platforms (MEWPs) on site must:

• Be planned by a competent person who has completed the MEWP for managers course (IPAF). For more information, see https://www.ipaf.org/en
• Have a specific risk assessment in place
• Use the appropriate equipment
• Have sufficient emergency arrangements in place, for example, a rescue plan and a drill schedule and evidence that they have been tested
• Ensure the prohibition of lone working.

In addition, all MEWPs will:

• Be correct for the task
• Be compliant with MEWP policy (see Appendix 4). This policy requires that all Category 3b MEWPs are fitted with a safety device fitted to the basket of the
machine to guard against serious operator injury from entrapment. This should also include the provision of pre-crush sensors for boom type MEWPS, such as SkySiren from Nationwide Platforms

- Be provided for a check by tRIIO prior to being used on site
- Have designated, authorised users who are clearly identified
- Have valid weekly and daily inspections carried out and valid certification in place
- Be removed from use following the identification of relevant defects.

### 9.7 Demolition – specialist contractor

If tRIIO requires a specialist demolition contractor, they must hold current membership of the National Federation of Demolition Contractors (NFDC).

tRIIO requires that any demolition contractor who is contracted to work on tRIIO employs a full-time supervisor, who as a minimum is in possession of a valid gold card (CCDO demolition supervisor card), in addition to any certification required for a site manager/supervisor. Operatives must also hold the relevant CCDO demolition card.

### 9.8 Temporary works

The arrangements for minimising and controlling risks throughout the temporary works life-cycle are set out in the tRIIO temporary works procedures on Our Way of Working (OWOW).

The designated individual is responsible for ensuring that a temporary works coordinator (TWC) is appointed. The TWC is responsible for ensuring that all design and construction work is carried out in accordance with the agreed temporary works procedures. All suppliers (designers, subcontractors, third parties etc.) are bound by and must work in accordance with the tRIIO temporary works procedures. The temporary works procedures and the requirements of BS5975 must be met and discussed at the pre-commencement meeting.

All temporary works are to be designed, design checked, installed, dismantled and checked or approved for loading or unloading by competent people. Demonstration of their competence to discharge their professional responsibilities will be required.

All construction materials, components and the physical construction of the temporary works are inspected and approved to ensure their compliance with the design. This will be done through the temporary works process.

All excavations shall be subject to a risk assessment by a competent person. The purpose of such a risk assessment is to identify the need for an appropriate engineering solution, for example, shoring, battering or stepping, which has been subject to an approval process. Excavations 1.2m or deeper, without exception, will require an engineering solution. tRIIO trench support designs (QFM309) set out the standards – see Appendix 17.

Training requirements for installation of temporary works within excavations can be found in the training matrix, Appendix 15.

### 9.9 Lifting operations

All lifting operations are to be conducted in conjunction with suitable and sufficient risk assessments, method statements and comprehensive lift plans, in conjunction with tRIIO Lifting Operations Procedures (EHS 013 P01). See Appendix 9 for more information.
9.9.1 Competence

The following table represents the minimum competence requirements for specific roles:

<table>
<thead>
<tr>
<th>Lifting appointed person</th>
<th>Required competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifting AP (restricted to HIABs and excavators)</td>
<td>Can be appointed, upon completion of the two-day ‘lifting with HIABs and excavators course’.</td>
</tr>
<tr>
<td>Crane supervisor</td>
<td>Holds a valid CPCS crane supervisor qualification, except for lorry loaders where an ALLMI or NPORS is acceptable.</td>
</tr>
<tr>
<td>Slinger/signaller</td>
<td>Holds a valid CPCS and/or EUSR slinger/signaler qualification except for lorry loaders where an ALLMI or EUSR card is acceptable. Note: only CPCS cards that state ‘all duties’ cover all types of lifting plant. Modules A &amp; B cover cranes, C covers Hiabs, D covers excavators and E covers telescopic forklifts.</td>
</tr>
<tr>
<td>Excavator operators</td>
<td>Holds a valid CPCS/EUSR/NPORS card for the category of excavator they are operating. This card must include CPCS/EUSR/NPORS lifting operations training (A58C/A59C or A10/12 for CPCS/NPORS and EUSR equivalent ‘lifting with excavators’).</td>
</tr>
<tr>
<td>Overhead (gantry) crane operator</td>
<td>Holds a valid RTITB qualification for type of equipment.</td>
</tr>
<tr>
<td>Piling rig operators</td>
<td>Holds a valid CPCS card for the category of rig they are operating.</td>
</tr>
<tr>
<td>Telehandler operator</td>
<td>Holds a valid CPCS/EUSR card for the category of telehandler they are operating. Standard CPCS telehandler training does not include rotating telehandler equipment or operating with suspended loads (see Appendix 9), EHS010 G09.</td>
</tr>
<tr>
<td>Fork truck operator</td>
<td>Holds a valid CPCS card for the category of fork truck they are operating.</td>
</tr>
<tr>
<td>Hoist erector</td>
<td>NVQ levels two or three in hoist installation.</td>
</tr>
<tr>
<td>Hoist operator</td>
<td>Over 18 and has undertaken training by the hoist supplier and holds a valid CPCS A20 category card.</td>
</tr>
</tbody>
</table>

Additional requirements

- For basic lifts, an individual can only undertake more than one of the duties above where they have the required competency
- Where a red (trainee) CPCS card is presented, the holder must also provide evidence that they are working towards the achievement of a blue (competent operator) CPCS card.
9.9.2 Lifting plans

Competency

The following table represents the different categories of lifts on tRIO sites:

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
</tr>
</thead>
</table>
| Basic lift                | • Where the weight of the load(s) can easily be recognised and there are no hazards or obstructions in the area of the operation.  
• Limited to excavators and Hiabs.  
• Lift plan required for scaffolds using lifting equipment – checked by a competent person. |
| Intermediate (standard) lift | • Where there are hazards within the working area of the crane or within the access route to the working area, but no multiple crane lifting is required. |
| Complex lift              | • More than one crane is required to lift the load.  
• Cranes require load enhancing equipment.  
• Lifting of persons.  
• The operation is in a location with exceptional hazards – for example, chemical/overhead power line. |
| Contract lift             | • Where tRIO uses the complete services of a third party to plan, manage, organise and undertake a lifting operation within a defined scope of works to CPA conditions and BS 7121. |

9.9.3 Lifting equipment

Lifting accessories must be clearly marked to identify the date of the last and next inspection. This may be through a colour coding or tagging system. Copies of LOLER inspection certificates (for equipment and accessories) should be available at the point of work. The requirements for recorded inspections are:

• Daily before-use inspections must be carried out on all accessories and equipment (such as chains and slings)
• All lifting accessories – for example, strops, chains, shackles, hoists and gin wheels (with automatic braking) – require a formal inspection every six months
• All lifting equipment – for example, Hiab, crane, tail lifts and grab wagons – require a formal inspection every 12 months (if equipment is used to lift people, then it should be every six months)
• A four-yearly test/overload test is required for all lorry loaders.
9.9.4 Roles and responsibilities

<table>
<thead>
<tr>
<th>Roles</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations manager</td>
<td>• Appoint and train appropriate persons.</td>
</tr>
<tr>
<td></td>
<td>• Use suitable contractors.</td>
</tr>
<tr>
<td></td>
<td>• Ensure tRIIO’s procedures are followed.</td>
</tr>
<tr>
<td>Appointed person</td>
<td>• Responsible for categorisation, planning and organising of lifting operations</td>
</tr>
<tr>
<td></td>
<td>and production/review of lift plans, as required.</td>
</tr>
<tr>
<td></td>
<td>• Correct selection of equipment and accessories.</td>
</tr>
<tr>
<td></td>
<td>• Ensure inspection, maintenance and all documents are in place.</td>
</tr>
<tr>
<td>Crane/lift supervisor</td>
<td>• Supervise the lifting operation.</td>
</tr>
<tr>
<td></td>
<td>• Control the lifting as per the lift plan.</td>
</tr>
<tr>
<td></td>
<td>• Ensure correct equipment is being used as stated in the lift plan.</td>
</tr>
<tr>
<td></td>
<td>• Control permits.</td>
</tr>
<tr>
<td></td>
<td>• Control exclusion zone</td>
</tr>
<tr>
<td>Slinger/signaller</td>
<td>• Assist the lifting operator with the movement of the load.</td>
</tr>
<tr>
<td></td>
<td>• Attach and detach the load.</td>
</tr>
<tr>
<td></td>
<td>• Ensure they are slung correctly.</td>
</tr>
<tr>
<td></td>
<td>• Control exclusion zone</td>
</tr>
<tr>
<td>Temporary works</td>
<td>• Provide information on ground conditions and other suitable controls.</td>
</tr>
<tr>
<td>coordinator</td>
<td>• Issue of permit to load.</td>
</tr>
</tbody>
</table>

9.9.5 General requirements

Independent inspection organisation used for the periodic thorough examinations must be accredited by UKAS and be members of the Safety Assessment Federation (SAFed).

- Individual engineer surveyors must be independent of those carrying out regular maintenance of the equipment (for example, not working for the owner of the plant/equipment).
- Where the crane or part of the load being lifted can enter prohibited space – such as over a public highway, a site boundary or adjacent to overhead lines – the crane must be fitted with zone limiting devices. The limiting devices must limit both slewing and derricking as required.
- Truck mounted forklifts and other small forklifts used by delivery companies must be restricted to a suitable hard standing, for example tarmac/concrete segregated compound, as identified in the site specific risk assessment.
- Non-hydraulic crawler cranes are prohibited on tRIIO sites.
- All mobile cranes are prohibited from extracting sheet piles.
- The use of all types of forks that are fitted to or suspended from 360 excavators (including the backhoe) is prohibited.
- The use of swivel hoists is prohibited.
- The slinger/signaler is prohibited from acting as the crane operator.
- HGV grab lorry drivers will require a suitably competent slinger/signaler to assist and control all lifting operations.
- It is prohibited to under-sling loads under the forks of wheeled mobile plant for transportation.
Any excavator used for lifting shall be fitted with the following equipment, only once a lifting plan has been developed and accepted:

- Load hooking device (if a hook must be fitted with a clip)
- Object handling table with differential radius
- If maximum lift is over 1000kg (1 tonne), a boom lowering control, for example, hose burst check valves to ISO 8643:97
- Acoustic or visual limiter/indicator
- Outriggers/blades to manufacturers standards
- All attachments must be compatible and have the SWL indicated (and shall be included within the weight of the lift).

10.0 Excavations and buried services

- No excavation works shall be undertaken without an underground service avoidance permit having been issued by tRIIO.
- It is the responsibility of the subcontractor to provide a competent person to carry out the location and recording of underground plant, within the area(s) of working. All equipment utilised in the operation of locating and recording underground plant must be calibrated and evidence of calibration forwarded to tRIIO within a reasonable time scale of request.
- The use of non-contact methods, for example, vacuum excavation and/or air lance with compressor, is the primary method for excavation (around buried services and tree roots). Every digging team should have one air lance and compressor complete with foot long extension and 45° bend.
- Hydraulically-driven articulated hose vacuum excavators are prohibited (per contract).
- All hand tools used for excavation, backfill and reinstatement activities must be electrically insulated to BS8020. Chisel ended forks may be used.
- The air lances to be used are the soil pick and/or RSP-blower lance and air streamer 1. Screens on barriers are to be used to minimise the risk of ejected debris.
- The subcontractor will equip and train all competent persons responsible for the location of underground plant. The minimum of eCAT 4+ is to be used, however gCAT 4 is preferred.
- Electrician kit is to be provided to teams which include a plug adapter and ring clamp.
- Performance should be regularly reviewed using the CAT download data. This will be reviewed at the regular subcontractor forum meetings.
- Where a subcontractor is employed to carry out drilling operations through a structure, for example, core drilling, the subcontractor must supply the responsible person with a hand held cable detector and provide manufacturer training in the use of this locating device prior to issuing the equipment, for example, the Bosch-DTect 150 or equivalent.
- Before breaking ground, all relevant and in-date utility plans must be on site for the specific area.
- Where excavators are to be used, excavation work is to be carried out with toothless buckets only.
- When breaking ground with a mini-excavator pecker, where a windscreen is not fitted, operators are to ensure there is sufficient distance between the driver and the activity to ensure they are not at risk from ejecting debris. They should also be wearing impact resistant eye protection.
- Suitable exclusion zones must also be in place.
- Utility protection boards are to be used.
- Encroachment lines and mark ups are to be followed in accordance with the
underground services permit EHS 007 G03 (see Appendix 24).

10.1 Overhead power lines (OHPL)

No work shall begin in the vicinity of overhead power cables without a documented site specific risk assessment approved by tRIIO. This will be subject to all precautions and protection as stipulated in EHS 018 G08 and the HSE guidance note GS6 fourth edition “Avoidance of danger from overhead electric power lines”. See Appendix 22.

10.2 Breathing apparatus

Where it is identified at the pre-commencement meeting that the subcontractor is required to supply breathing apparatus (BA), it shall be uniquely numbered and tagged to show the date of the next inspection (minimum 12 monthly inspection). The tags shall be on the mask, Y hose and hose. The subcontractor shall be responsible for the maintenance of breathing apparatus. Anyone requiring the use of breathing apparatus will have their own personally issued mask and flame retardant balaclava which is personally issued to them.

11.0 Confined spaces

To ensure compliance with confined space regulations 1997, tRIIO will ensure that confined space procedures are implemented as follows:

- All personnel are to be trained as a minimum to the appropriate city and guilds 6150 framework, in conjunction with the table below
- All confined space working must be appropriately managed subject to categorisation using the tRIIO Confined Space Schedule (EHS 007-F01)
- A suitable and sufficient risk assessment and method statement (RAMS) shall be provided prior to entering any confined space with additional controls as detailed in the Confined Space Permit (EHS 007-F15)
- RAMS provided are to be inclusive of emergency preparedness and rescue arrangements
- Permits must be issued by an appropriately trained appointed person/ coordinator, subject to categorisation
- All personnel entering a confined space must have a personal gas monitor/ gas detection unit to conduct atmospheric monitoring. See Appendix 26 for more information.
12.0 Vehicles, plant and equipment

- All vehicles are to meet tRIIO’s commercial vehicle minimum standards (Appendix 13) and the plant and equipment minimum standards (Appendix 16).
- All plant operators are to be trained and certified as a minimum to the EUSR plus scheme, CPCS or NPORS.
- Additional training will be required for the operation of ancillary equipment, for example, quick hitches, lifting equipment or grabs.
- All variants of dumpers below two tonne are prohibited on all tRIIO sites.
- Copies of all relevant certification/documentation must be held on file and made available on request by tRIIO.
- All subcontractors must hold bronze and be working towards Fleet Operator Recognition Scheme (FORS) silver accreditation within 24 months of the pre-commencement meeting – see Appendix 25.
- Diggers and dumpers must have high visibility orange seat belts.
- All heavy goods vehicles (HGVs), large goods vehicles (LGVs), flatbed and ‘transit van’ style vehicles must have audible warning reversing signals – these signals must remain operational when the vehicle lights are switched on.
- All vehicles must have reversing lights.
- All vehicles without a clear rear view (through a central mirror) including HGVs, LGVs, flatbed and ‘transit van’ style vehicles must be fitted with reversing cameras.
- Where there is a risk of falling from a vehicle, for example working from the back of a flatbed, edge protection or another fall protection system shall be installed that complies with the work at height regulations 2015 and prevents the risk of falling from the vehicle.
- Daily/before-use inspections must be carried out and recorded.

12.1 Quick hitches

All quick hitches buckets will be of the ‘new generation’ fully automatic double-locking device that locks both pins of the bucket. Semi-automatic quick hitches and fully automatic quick hitches with single pin capture will not be permitted on tRIIO sites. See Appendix 7.

<table>
<thead>
<tr>
<th>Operating unit</th>
<th>Minimum level of training required</th>
<th>National classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOBS</td>
<td>C&amp;G 6150-02 medium risk confined space training (two-day)</td>
<td>NC 2</td>
</tr>
<tr>
<td>Complex projects</td>
<td>C&amp;G 6150-02 medium risk confined space training (two-day)</td>
<td>NC 2</td>
</tr>
<tr>
<td>NL, EA and EM projects (MRP and LMPS), diversions, reinforcements and NSC</td>
<td>C&amp;G 6150-02 medium risk confined space training (two-day)</td>
<td>NC 2</td>
</tr>
<tr>
<td>MRP</td>
<td>C&amp;G 6150-01 low risk confined space training (one-day)</td>
<td>NC 1</td>
</tr>
<tr>
<td>Connections</td>
<td>C&amp;G 6150-01 low risk confined space training (one-day)</td>
<td>NC 1</td>
</tr>
</tbody>
</table>
In addition:

- Retaining safety pins must be secured to the machine (for example with a braid or chain), retained by a suitable lynch pin and with ends sprayed in a fluorescent colour.

### 12.2 Controls within excavators

When utilising JCB mechanical excavators above 5T, the JCB “2 Go” system must be fitted as standard. Where JCB equipment is not available, a suitable system with a ‘2 stage’ activation process for dead man’s handles shall be used.

### 12.3 360 degree visibility

All items of plant with blind spots and within the scope of the tRIIO standard (excavators above 10T and telehandlers) will be fitted with a proximity warning system which meets the technical requirements for all-round visibility. See Appendix 8 for full details and the summary below:

- A 360 degree camera system that interlinks pictures from multiple cameras that can pick up a pedestrian from a maximum distance 5m, to a minimum of zero, in all directions
- Pedestrians and objects, such as materials, should be visible up to a height of 1m over the entirety of the surrounding view and must not disappear on the boundary between cameras
- Cameras must have a wide dynamic range and real time video delivery of 25 frames per second as well as being able to function in normal construction environmental conditions, for example, lighting levels.

### 12.4 Exclusion zones

Suitable exclusion zones must be implemented and maintained when plant/machinery is in use. See Appendix 10 for specific plant safety zones.

### 12.5 Impact moling

All moling operations are to be conducted in conjunction with suitable and sufficient risk assessments and method statements and subject to a moling permit (EHS 007 F21) being issued prior to undertaking the works.

Moling PPE is to be issued and worn as follows:

- Safety helmet
- Safety glasses/goggles
- Dust mask
- Fire resistant overalls including hi-visibility outer
- Hearing protection
- Moling gloves (subject to six-monthly electrical insulation inspection)
- Moling boots.
12.6 Horizontal Directional Drilling (HDD) – specialist contractor

- The subcontractor will ensure that any horizontal directional drilling rigs have safety guards fitted that comply with HSE, to prevent entanglement. For the requirements, see http://www.hse.gov.uk/gas/supply/checklist2.pdf.
- An authorised permit to drill, supported by a method statement, site specific risk assessment (including a site specific noise assessment) and a proposed bore plan must be provided before carrying out each bore. This information shall be included within the job pack and shall be reviewed and approved by a member of the health and safety department and the operational manager. See Appendix 21 for further information.
- Supervisors, operators and those issuing the permits for HDD activities will hold appropriate city and guilds training and certification, namely City & Guilds 386 ‘Management and Control of Horizontal Directional Drilling Projects’. See Appendix 21 for further information.

12.7 Use of blades

- The use of fixed blade Stanley knives are prohibited and automatic retractable cutting blades should be used.

12.8 Abrasives wheels/petrol cut off saws

All subcontractors must follow the PUWER regulation and EHS 010 G06 Safe Use of Petrol Cut-off Saws.

All operatives who are required to use abrasive wheels are to be trained and competent. They are to have undertaken familiarisation training in their safe operation, including: general use, changing of the wheel, refueling and use of attachments such as cradles, jigs and water/dust suppression.

All operatives are to wear suitable PPE including goggles and must be face fit tested - minimum standard (FFP3).

The training must be of the following standard:

- CITB petrol driven cut-off saws (PDCOS).

Training certificates are to be provided to the Develop/ tRIIO training department, as evidence that the training has been undertaken.

13.0 Protecting vulnerable road user requirements

In line with tRIIO’s commitment to improving the management of road related risk, and the work of both FORS and CLOCS, tRIIO requires that all parties comply with tRIIO’s vulnerable road user’s policy. See Appendix 5.

13.1 Protecting members of the public

Where footways and pedestrian areas are affected by street and road works, subcontractors and employees will ensure that they conform to tRIIO’s specific requirements regarding
maintenance and integrity of the site boundary and protection of the public from both the works and passing traffic.

All pedestrian routes must be fit for purpose and used safely by all, for example by vulnerable persons such as children, elderly or disabled people. At all static works, pedestrians must be protected by a continuous system of barriers, with any holes or excavations adequately covered. Where sites are left unattended, they are to be subject to out-of-hour inspections at regular intervals.

All signing, lighting and guarding are to be sited as prescribed in the ‘Safety at Street Works and Road Works’ in the Code of Practice (the red book) and risk assessed in accordance with tRIIO’s signing, lighting and guarding decision matrix (EHS 028 P01).

### 14.0 Electrical safety

#### 14.1 PAT testing

All electrical portable appliances will be fully PAT tested, registered and labelled showing the subcontractor and/or the plant hirers name and next test due date.

<table>
<thead>
<tr>
<th>Construction sites type of equipment</th>
<th>User checks</th>
<th>Formal visual Inspection</th>
<th>Combined inspection and test</th>
</tr>
</thead>
<tbody>
<tr>
<td>110 V Equipment</td>
<td>Yes, weekly, recorded</td>
<td>Yes, monthly</td>
<td>Yes before first use on site, then quarterly</td>
</tr>
<tr>
<td>230 V Equipment</td>
<td>Yes, daily/every shift</td>
<td>Yes, weekly</td>
<td>Yes, before first use on site then monthly</td>
</tr>
<tr>
<td>Fixed residual current devices (RCDs)</td>
<td>Yes, daily/every shift</td>
<td>Yes, weekly</td>
<td>Yes, before the first use on site, then quarterly (portable RCDs – monthly)</td>
</tr>
<tr>
<td>Equipment in site offices</td>
<td>Yes, monthly</td>
<td>Yes, monthly</td>
<td>Yes before first used on site then yearly</td>
</tr>
</tbody>
</table>

You should comply with the following:

- Radiant space heaters, heaters without thermal overload and tubular heaters not fitted with a wire cage, are prohibited
- Multiway plug and socket adapters must be fused and surge protected
- Portable and hand held tools for use with voltages above 110v are prohibited unless no alternative equipment is available, and providing the equipment is centre tapped to earth, armored cabled and additional RCDs fitted
- 240V chargers for cordless power tools are only permitted following approval by the tRIIO operational lead.

### 15.0 Hot works

To ensure compliance with the Regulatory Reform (fire safety) Order 2005 (RRFSO), tRIIO will ensure that hot works procedures are implemented as follows:
• All welding activities must be subject to a suitable and sufficient risk assessment with additional controls as detailed in the hot work permit (EHS 007-F04)
• Permits must be issued by a hot works appointed person/ coordinator prior to undertaking any such activity
• Where other hot works are required, for example soldering or hot lay reinstatement, the hot works checklist (EHS 007F20) is to be implemented. The checklist can be self-authorised by the supervisor/team leader or CSE at point of work.

15.1 Firefighting equipment

• Where engineering activities are to be undertaken, 2 x 9kg fire extinguishers (dry powder) are to be deployed and readily available for use, which are in-date and fully charged.
• Where reinstatement activities are to be undertaken, 2 x 2kg fire extinguishers (dry powder) are to be readily available for use that are in date.
• Where CSE activities are to be undertaken, 1 x 2kg fire extinguishers (dry powder) are to be readily available for use that is in date.
• Subject to risk assessment, additional firefighting equipment may be required for significant hot works and welding activities.

16.0 Health risks

Prior to starting on site, subcontractors who will be undertaking works involving noise, dust, vibration, or asbestos, must demonstrate to tRIIO how the risk of such activities will be mitigated and managed.

Information must be included within risk assessments and method statements for agreement by tRIIO.

16.1 Dust

Subcontractors should comply with the HSE guidance CIS36 Construction Dust and HSG 53 Respiratory Protective Equipment at Work – a practical guide.

Controls should include:

• Water suppression
  Dampening down will be carried out to reduce dust. Where practical, rainwater or grey-water will be used.

• On tool extraction (OTE)
  Where it is not possible to design out the creation of dust resulting from the use of tools and equipment, OTE shall be used to remove these dusts from the work environment, at the source. Where OTE is required, a H (high) or M (medium) class filter unit must be used to ensure effective and reliable extraction capability.

• Suitable RPE and face fit testing
  Provision of quantitative and qualitative face fit testing shall be provided for RPE by the subcontractor/employer. The requirement for type and frequency of face fit testing must be assessed in accordance with HSE requirements to ensure legal compliance.
All trIIo staff and subcontractors performing activities that require the use of RPE must have had a face fit test by a fit2fit accredited tester prior to first use, and must be clean shaven when using the RPE. The subcontractor/employer is responsible for all face fit testing on an annual basis, as a minimum. The subcontractor/employer will provide evidence of face fit testing prior to induction. See Appendix 6.

16.2 Noise

All plant and equipment will be provided for a check by trIIo prior to being used on site:

- The sound level in decibels (dB) of all plant to be used on site must be provided
- All compressors, percussion tools, plant and vehicles will be fitted with effective silencers of a type recommended by the manufacturer
- All plant and equipment will be shut down or throttled back to idling speed during periods of non-use
- All relevant plant will comply with the permissible noise levels set out in the appropriate European directives and any local restrictions
- All plant and equipment is to comply with the relevant air emission guidelines for particulates, for example London’s low emission zone. Documentation is to be made available when requested
- All plant and equipment will be maintained in good working order, with particular attention being paid to the condition of silencers and acoustic panels.

16.3 Hand Arm Vibration Syndrome (HAVS)

Repeated and prolonged exposure to vibration transmitted to the hand and arm from using vibrating tools and equipment can lead to occupational diseases, such as vibration white finger and carpal tunnel syndrome. Collectively these diseases are known as Hand Arm Vibration Syndrome (HAVS).

An Exposure Action Value and Exposure Limit Value are legally set levels of vibration that workers should not be exposed to, so the employer should take reasonable steps to keep exposure to hand arm vibration as low as reasonably practicable.

There is an Exposure Action Value of 2.5m/s² A(8), at which employers should introduce technical and organisational measures to reduce exposure. There is also an Exposure Limit Value of 5.0m/s² A(8) which should not be exceeded.

You should therefore:

1. Assess the risks from your works and put in place control measures to reduce exposure. RAMS should include the vibration levels of the equipment being used
2. Inform, instruct and train your employees so they can recognise the symptoms and know how to report any signs of injury
3. Identify those employees liable to be exposed to vibration or exposure at or above the EAV, as they require health surveillance.

Subcontractors should comply with trIIo procedure EHS 014B G01 (Appendix 11) or have an equivalent procedure implemented and evidence of this provided.
16.4 Asbestos

On projects where the presence of asbestos is known, tRIIO will advise the subcontractor by way of pre-construction information to allow planning to reduce risks. Where asbestos is discovered during works, the subcontractor should stop work and report to the tRIIO site manager and the health and safety advisor.

Subcontractors who may come into contact with Asbestos Containing Material (ACMs) during any work activity should have asbestos awareness training which is UKATA approved.

Specialist contractors, who are approved by tRIIO for the type of work to be undertaken, will carry out the works and remove asbestos from site.

17.0 Quality requirements

tRIIO requires that all subcontractors develop a management system that follows the framework and requirements of ISO 9001:2015. This requirement is subject to a supply chain audit where the subcontractor’s quality management system will be audited.

Subcontractors shall submit Inspection and Test Plans for each project detailing the inspection and testing necessary to ensure the engineering and technical quality of the works. This shall be provided for approval a minimum of 14 days in advance of the works. See quality management in OWOW.

18.0 Sustainability (environmental management)

The sustainability strategy outlines our commitment to deliver the best sustainable utility project. This is achieved through our KPIs detailed within the objectives and targets.

KPI tracking will consist of monthly returns on the fifth of every month (see Appendix 27, EHS 045 F01) for waste, material, fuel and plant information, mileage, audit action completions, inspections, and actions from performance meetings.

We have in place an environmental management system certified against ISO 14001:2015, which identifies the risks and opportunities associated with our work activities (aspects and
impacts). Our management system provides procedures and guidance to support the way we shall undertake our activities:

- Ecology and wildlife
- Archaeology/heritage
- Work near water
- Pollution prevention
- Contaminated land
- Noise, vibration, odor
- Waste management and minimisation.

tRIIO has a project-wide Project Environmental Management Plan (PEMP) and subcontractors should operate their own such document detailing their alignment with tRIIO environmental controls. For back-to-back contractors, a current Site Waste Management Plan (SWMP) needs to be in place for all projects they are working on, to form part of tRIIO’s overarching SWMP.

### 18.1 Pollution prevention

- All commercial vehicles/vans shall carry a 15-litre spill kit in case of emergency and drivers will be trained in their use.
- All HGV/LGV vehicles (grab hire, HGVs, low loaders) to have spill kits which are suitable and sufficient for the potential risk. A spill kit should contain a minimum of: two pillows, three booms/socks and spill pads, at minimum a 25L spill kit. No granules are to be part of these spill kits.
- As a minimum, each van should have a sediment sock in clean, good working order. When dewatering excavations, the sock should be used as a minimum so that all silt is contained and disposed of separately.
- All contract and subcontract personnel to be trained through an environmental awareness course and briefed on environmental risks and emergency control measures before commencing work. A relevant training matrix is to be supplied as part of pre-commencement.
- All fuel drums/COSHH substances must be bunded to 110% capacity of the largest container or 25% capacity of all the containers, whichever is greater. The bund can be either a plastic sump pallet or of concrete construction. The bund must be covered to prevent water ingress, and shielded for refilling operations.
- Where bowsers are present, a second container is to be provided and a spill station taking up to 50% of bowsers’ load.
- Smaller COSHH items (for example, mastics and aerosols) must be stored in a COSHH locker.
- All COSHH items should have COSHH assessment/safety data sheets.
- Washout of concrete trucks on site must follow regulatory guidelines to prevent pollution, for example via a proprietary concrete wash water treatment system.
- Static fuel tanks (even double skinned/bunded) must be sited on an interceptor drip tray as a third level of protection.
- Mobile fuel bowsers, compressors and plant containing fuel must have an appropriately sized drip tray – for example, plant nappies underneath them at all times.
- In case there is a risk of runoff into drains, a drain cover or a drain filter should be inserted.
- To minimise any pollution risk when working within farmland, parks or green areas, tRIIO encourages the use of alternative fuel or plant – for example, biodiesel, bio-oil and hybrid or electric plant.
18.2 Waste

tRIIO has a commitment to deliver zero waste to landfill and we have in place a long term objective to generate zero waste. tRIIO will work to adopt and implement standards of good practice in preventing and reducing waste, recycling more and increasing the use of recycled and recovered materials.

For contractors instructed to manage their own waste, the following applies:

- Waste must be segregated into waste containers. As a minimum, separate skips/bins should be provided for plastic, concrete and hard-core, wood, plasterboard and metal
- Signage identifying the correct waste type must be displayed on every skip
- All timber pallets must be returned to suppliers
- Hazardous waste – for example, used COSHH items or contaminated spill kit materials – must not be mixed with any other waste and a specialist company is to remove and safely dispose of it, providing all duty of care paperwork
- Where contaminated waste is encountered on site, responsibility to dispose of it is deferred and the tRIIO environmental team should be contacted
- Suitable containers – for example, clip top drums – for the disposal of hazardous waste must be sourced from a specialist hazardous waste company
- Monthly waste data to be supplied to tRIIO (tonnage and volume) for each waste stream using EHS 045 F01 and ensuring it is regularly reviewed.

All subcontractors that have a responsibility for their own waste shall ensure that they:

- Work under the provisions of their Site Waste Management Plan (SWMP), to be in place for our back-to-back contractors
- Classify waste in accordance with regulatory guidelines
- Have a valid waste carriers licence
- Have environmental permits, for all facilities where all the waste streams are transported to, and the recycled aggregate supplier’s WRAP manual, for any import recycled materials. As specified within “End of waste criteria for the production of aggregates from inert waste”, found at: https://www.gov.uk/government/publications/quality-protocol-production-of-aggregates-from-inert-waste
- Have carried out duty of care checks and audits before using any waste facility and any WRAP supplier
- Have waste transfer and consignment notes completed and retained for six years.

18.3 Carbon – energy usage, fuel

The main focus areas are to minimize the fuel used and the embodied carbon contained in products. To meet these objectives, subcontractors must report the following by the fifth of every month on form EHS 045-F01:

- Fuel used
- Mileage undertaken.

18.4 Water management

tRIIO has a long-term objective to minimise both water used on site and embodied water contained in its products. To meet these objectives, subcontractors must provide the following each month:
• Account and report all process water used on site to deliver work
• Report all potable (drinking) water used on site and its source.

18.5 Materials

tRIIO has an objective to proactively select and use materials that are benign (not harmful) to humans and the environment and to use zero unsustainable materials (apply life cycle assessment). These materials include:

• Timber products (FSC or PEFC certified)
• Quarried products
• Recycled and secondary materials (WRAP compliance)
• Ethical sourcing (BES6001 and modern slavery act)
• Materials promoting a circular economy.

Subcontractors on a monthly basis must report the following on EHS 045 F01:

• All deliveries of timber and timber products
• All deliveries of quarried products
• Ensure that all products and their recycling content/percentage is recorded
• Supporting technical documentation of recycled content and delivery notes, made available to tRIIO on request
• Recycled material used for reinstatement must comply with the WRAP quality protocol (including testing requirements)
• To encourage reuse, pipe cut-offs of more than 30 metres, which are securely strapped, and fittings still bagged and without any tears or signs of rust, are accepted for returns.

19.0 Personal protective equipment (PPE)

The following minimum standards of appropriately branded PPE (tRIIO or Cadent) must be provided to their operatives and staff, to be worn at all times whilst on site. A minimum of two sets of PPE should be provided – set out in table in Appendix 23. Procurement will obtain assurance from the supply chain that they are meeting these standards or they will need to provide their PPE through tRIIO. PPE can be provided from the contractor’s stores at a cost to the subcontractor or the subcontractor can purchase from the contractors framework rates direct from the supplier. Any PPE supplied by contractor to subcontractor will be contra charged.

If PPE is found to be below the minimum standards, it will be replaced ‘old for new’ at contractors cost.

For engineering works and reinstatement:

• Lace up safety footwear with ankle support and midsole protection wellingtons
• Flame retardant high visibility outer (waistcoat) with long sleeve (orange or yellow) jacket
• Flame retardant overalls. Cotton undergarments should be worn to provide further protection
• Eye protection. Wearers of prescription spectacles are to obtain prescription safety spectacles from their employer. (The wearing of over glasses is only to be used for
visitors of a short duration and is not acceptable for site workers. A risk assessment will be carried out to determine whether a higher level of eye protection is required and where identified must be provided and maintained)

- Hand protection
- Head protection shall be worn and shall display a completed ICE (In Case of Emergency) tag
- Hearing protection
- Flame retardant balaclava
- Kit bag
- Waterproof jacket and over-trousers.

The following hard hat colour coding applies to all tRIIIO sites:

<table>
<thead>
<tr>
<th>Colour of helmet</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>Supervisor/team leader/site manager</td>
</tr>
<tr>
<td>White</td>
<td>Management and competent operatives and trades – all external works</td>
</tr>
</tbody>
</table>

For internal works and riser teams, exceptions are:

- Flame retardant long sleeved polo shirts
- Cargo trousers
- Overalls
- Bump caps.

See Appendix 23 for further details.

19.1 Track side specific requirements

Safety helmets worn on or near the line side to be white, except under the following circumstances where the individuals’ safety helmet shall be blue:

- Individual is issued a Track Visitors Permit (TVP)
- Individual is in receipt of a Personal Track Safety (PTS) card with a green square symbol on it
- The provision of NR/PRC/MTC/SE0089 – the individual is included on the infrastructure maintenance new starters mentoring (passport) scheme.

The name or logo of an individual’s sentinel sponsor (or other name or logo agreed with network rail) may be marked upon a safety helmet. Such markings shall not exceed 10% of the safety helmets visible surface area.

Safety footwear that complies with BS EN ISO 20345:2011 S3 SRC HRO, as a minimum and which has a covered protective toe-cap, mid sole protection and provides support to the ankle (lace up—not rigger type).

High visibility orange body clothing with reflective tape to comply with railway group standard GO/RT 3279 and BS EN 471 class 2. The outer layer of the upper body high visibility clothing must be clearly marked on the back with the individual's sentinel sponsor’s logo or other logo agreed with network rail. (Full length waist coats, long sleeved jackets, or
similar garments that comply with the standard are suitable, but mini vests are not. Sentinel sponsors should supply the garment marked with their logo and the only other logos that may be agreed at the discretion of the network rail project manager are those which denote a particular project and contract. This type of logo should be printed directly onto the background material between the vertical retro reflective bands on the rear of the garment. The use of high visibility trousers or over trousers which comply with GO/RT 3279 and BS EN 471 class 1 is also mandatory.

Foul weather clothing (coat and trousers) to railway group standard GO/RT 3279 and BS EN 471 class 3 (gortex type breathable/water resistant material).

19.2 Additional requirements

- Other items of personal protective equipment that may be required following a task specific risk/COSHH assessment.
- Where tRIIO issues PPE to the subcontractor, the subcontractor will ensure that all leavers return any PPE items for disposal. This is a security requirement.

20.0 Materials storage

- All material in storage must be palletised, stored on racks or bespoke storage systems.
- Good housekeeping must be adhered to at all times.
- To be aware of project ‘green files’.
- Clearly set out responsibilities in any areas within yards, which are looked after by subcontractors.
- Any storage of materials on site should not expose them to weather effects or cause any environmental harm – for example, keep materials sheeted within an enclosed box/container.
- For goods and materials that can perish, producers’ storage specifications shall be followed at any time.

21.0 Communications

tRIIO hosts regular communication events, including, but not limited to:

- Toolbox talks
- CfL stand-ups
- Global safety stand-downs
- SHE alert briefings
- Pre-task briefings
- Health and safety quarterly stand-downs
- The ‘Right Stuff’ magazine.

It is expected that all subcontractor representatives and operatives are made available to participate in, and support such communications.

22.0 Incident report and investigation

- All incidents, including near misses and those that result in injury, harm or damage, must be immediately reported to the tRIIO incident line with sufficient details provided to allow records to be kept.
• The subcontractor must undertake their own investigations and outline actions taken to prevent reoccurrence. tRIIO requires initial investigation details for all accidents within 24 hours. The subcontractor must provide copies of their internal incident investigation report to the tRIIO health and safety manager within a reasonable timescale, but not less than two weeks, and co-operate fully in any investigation conducted.
• Where incidents are reportable under RIDDOR, a copy of the statutory report must be provided.
• Where there is absence or long term impact from an incident, the subcontractor must update tRIIO in a timely manner. An update on action closure must be provided at the subcontractor forums.

23.0 Regulatory visits

Should the subcontractor receive any visits from HSE, EA or LA, for example, the detail of these visits must be communicated to the tRIIO SHE team SHEQsupport@triio.co.uk in a timely manner. For environmental related visits, information should be sent to environment@triio.co.uk.

24.0 Provision of information

The subcontractor may be required to provide documentation applicable to the contract, as required.

25.0 Site rules

tRIIO site rules are applicable to all locations – see Appendix 12. Where there are additional location or client specific site rules, these will be communicated during the site specific induction.

26.0 Welfare requirements

See Appendix 14.
27.0 Reviewers

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linda Christian Booth</td>
<td>Head of SHE</td>
<td>01/11/2017</td>
</tr>
<tr>
<td>Jim Irving</td>
<td>Health and safety manager</td>
<td>30/11/2017</td>
</tr>
<tr>
<td>Linda Christian Booth</td>
<td>Head of SHE</td>
<td>28/03/2018</td>
</tr>
<tr>
<td>Paul Thompson</td>
<td>Head of technical services</td>
<td>..........</td>
</tr>
<tr>
<td>Craig Murdoch</td>
<td></td>
<td>..........</td>
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<tr>
<td>Donnie Whyte</td>
<td>Director of commercial and support services</td>
<td>..........</td>
</tr>
<tr>
<td>Matt Dolan</td>
<td>Director of operations</td>
<td>..........</td>
</tr>
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<table>
<thead>
<tr>
<th>Change date</th>
<th>Changes made</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11/2017</td>
<td>Section 9.6.1 was updated to read the following: scaffolds will be inspected every seven days by a competent person, for example, that hold a CISRS scaffold inspection training scheme (SITS) (CITB) card or equivalent and records provided to tRIIO. In addition, all scaffolds will be tagged, for example, with a Scafftag.</td>
<td>H Hunt</td>
</tr>
<tr>
<td>30/11/2017</td>
<td>Section 22 on page 34 was updated and is now called, “protecting members of public (MOP)” The text contents have changed. A reference to Appendix 13 (commercial vehicle tRIIO minimum standards document) was added to table on page 4. Section 10 on page 21 was updated to include vehicles (now vehicles, plant and equipment) and a reference to the commercial vehicle tRIIO minimum standards document as Appendix 13 was added. Commercial vehicle tRIIO minimum standards document version 1 November 2017 referenced to in this HSE minimum standards document.</td>
<td>H Hunt</td>
</tr>
<tr>
<td>28/03/2018</td>
<td>PPE Section 18 has been updated to read: The following minimum standards of appropriately branded PPE must be provided and worn at all times while on site (site being defined as between the men at work signs). This now gives a definition of a “site”</td>
<td>H Hunt</td>
</tr>
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<table>
<thead>
<tr>
<th>Version</th>
<th>Document title</th>
<th>Date</th>
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<td>Health, safety, well-being and environmental minimum standards</td>
<td>01/11/2017</td>
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<tr>
<td>3.0</td>
<td>Health, safety, well-being and environmental minimum standards</td>
<td>30/11/2017</td>
</tr>
<tr>
<td>3.1</td>
<td>Health, safety, well-being and environmental minimum standards</td>
<td>28/03/2018</td>
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## 28.0 Appendices

Copies of all appendices can be found on OWOW.

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<th>Appendix</th>
<th>Appendix name</th>
<th>Revision/date</th>
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<td>Skanska H&amp;S policy and Skanska environmental policy</td>
<td>H&amp;S – February 2016 Environmental – March 2016</td>
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<td>1b</td>
<td>MUS H&amp;S policy</td>
<td>Aiming for zero harm strategy 2014-19 Environmental Policy May 2010</td>
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<td>2</td>
<td>tRIIO role categorisation and tRIIO safety critical workers guidance</td>
<td>Role – EHS 022-G01 – June 2016</td>
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<td>3a</td>
<td>Skanska drugs and alcohol policy</td>
<td>June 2018</td>
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<td>3b</td>
<td>MUS drugs and alcohol policy</td>
<td>Issue 3 Revision 4</td>
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<td>4</td>
<td>MEWP policy and guidance</td>
<td>MEWP standard EHS 010 G12</td>
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<td>5</td>
<td>Vulnerable road users policy and guidance</td>
<td>Protecting vulnerable road users policy – Revision 1 – March 2015</td>
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<td>6</td>
<td>Dust management standard</td>
<td>Rev 1 – January 2016 EHS 006 G02</td>
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<td>Quick hitch standard</td>
<td>Quick hitch clause – EHS 010-G01 – September 2009</td>
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<td>360 cameras standard</td>
<td>360 camera standard – EHS 010-G03 – June 2015</td>
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<td>9</td>
<td>Wheeled plant and underslung loads standard &amp; Lifting operations procedure</td>
<td>EHS 010 G09 EHS 013 P01</td>
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<td>10</td>
<td>Plant, vehicle movements - standard for safety zones</td>
<td>EHS 010- G14 &amp; G15</td>
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<td>11</td>
<td>HAVS guidance</td>
<td>EHS 014B G01</td>
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<td>12</td>
<td>tRIIO site rules</td>
<td>EHS 001-P02</td>
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<td>13</td>
<td>Commercial vehicle tRIIO minimum standards document</td>
<td>Version 1 - November 2017</td>
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<td>14</td>
<td>Welfare requirements on tRIIO sites</td>
<td>EHS 001 P013 - September 2018</td>
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<td>15</td>
<td>Mandatory training per role (training matrix)</td>
<td>tRIIO training matrix</td>
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<td>16</td>
<td>Plant and equipment minimum standards ref document</td>
<td>EHS010 – G19</td>
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<td>17</td>
<td>tRIIO trench support designs QFM309</td>
<td>30.02 TWK G02 on OWOW</td>
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<td>18</td>
<td>Out of hours guidance</td>
<td>EHS 005 P01</td>
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<td>19</td>
<td>Excavation edge protection</td>
<td>EHS 015 G03</td>
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<td>Horizontal directional drilling guidance</td>
<td>EHS 007 P03</td>
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<td>21</td>
<td>Drilling and piling guidance &amp; HSE SIM 02/2011/04 - The Prevention of entanglement in the rotating parts of drilling and piling rigs</td>
<td>EHS 010 G13</td>
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<td>Overhead power lines</td>
<td>EHS 018 G08 and the HSE guidance note GS6 4th edition “avoidance of danger from overhead electric power lines”</td>
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<tr>
<td>23</td>
<td>Personal protective equipment specification</td>
<td>EHS 011-G03 PPE Specifications 2018 and PPE matrix for new starters tRiIO PPE matrix Version 1.0</td>
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<td>24</td>
<td>Underground services permit</td>
<td>EHS 007 G03</td>
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<td>BN on confined spaces, Oct 2018</td>
<td>EHS 012 F01 and EHS 012 G02</td>
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<td>27</td>
<td>Environmental monthly return</td>
<td>EHS 040 F01</td>
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### 29.0 Glossary of terms

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<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td>BOOKIT</td>
<td>tRIIO training IT system used for training and inductions</td>
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<tr>
<td>Build UK</td>
<td>Build UK is the leading representative organisation for the UK construction industry. By bringing together clients, main contractors, trade associations representing over 11,500 specialist contractors and other organisations committed to industry collaboration, Build UK represents in excess of 40% of UK construction. <a href="https://builduk.org/">https://builduk.org/</a></td>
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<td>Site</td>
<td>Construction site</td>
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<tr>
<td>EHS</td>
<td>Environment, Health and Safety</td>
</tr>
<tr>
<td>RPE</td>
<td>Respiratory Protective Equipment</td>
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<td>BA</td>
<td>Breathing Apparatus</td>
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<td>OH</td>
<td>Occupational Health</td>
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<td>SEQOHS</td>
<td>Safe, Effective, and Quality Occupational Health Service</td>
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<td>D&amp;A</td>
<td>Drugs and Alcohol</td>
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<td>RAMS</td>
<td>Risk Assessment and Method Statement</td>
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<td>COSHH</td>
<td>Control of Substances Hazardous to Health</td>
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<td>SSOW</td>
<td>Safe System of Work</td>
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<td>HSE</td>
<td>Health and Safety Executive</td>
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<td>HSG</td>
<td>Health and Safety Guidance produced by HSE</td>
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<td>NEBOSH</td>
<td>National Examination Board in Occupational Safety and Health</td>
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<td>NASC</td>
<td>National Access and Scaffolding Confederation</td>
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<tr>
<td>CISRS</td>
<td>Construction Industry Scaffolders Record Scheme</td>
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<td>TG20</td>
<td>TG20:13 - Good practice guidance for tube and fitting scaffolding. See NASC website</td>
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<td>BS EN 12811</td>
<td>Temporary works equipment. Scaffolds. Performance requirements and general design</td>
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<td>SG4</td>
<td>SG4:15 - Preventing falls in scaffolding operations. See NASC website</td>
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<td>MEWP</td>
<td>Mobile Elevated Work Platform</td>
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<td>SG25</td>
<td>SG25:14 - Access and egress from scaffolds via ladders and stair towers etc.</td>
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<tr>
<td>IPAF</td>
<td>International Powered Access Federation</td>
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<tr>
<td>NFDC</td>
<td>National Federation of Demolition Contractors</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
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<td>CCDO</td>
<td>Card scheme for Demolition Operatives</td>
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<td>CPCS</td>
<td>Construction Plant Competence Scheme</td>
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<td>HIAB</td>
<td>World’s leading provider of on-road load-handling equipment</td>
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<td>ALLMI</td>
<td>Association of Lorry Loader Manufacturers and Importers</td>
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<td>NPORS</td>
<td>National Plant Operators Registration Scheme</td>
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<td>EUSR</td>
<td>Energy and Utilities Skills Register</td>
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<td>RTITB</td>
<td>Road Transport Industry Training Board</td>
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<td>LOLER</td>
<td>Lifting Operations and Lifting Equipment Regulations</td>
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<td>Safety assessment federation</td>
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<td>UK Accreditation Service</td>
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<td>BS8020</td>
<td>Insulated hand tools</td>
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<td>eCAT4 and gCAT4</td>
<td>Cable avoidance detector produced by radio detection</td>
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<td>FORS</td>
<td>Fleet Operator Recognition Scheme</td>
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<td>Heavy Goods Vehicle</td>
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<tr>
<td>LGV</td>
<td>Large Goods Vehicle</td>
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<td>PTW</td>
<td>Permit To Work</td>
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<td>HDD</td>
<td>Horizontal Directional Drilling</td>
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<td>CLOCS</td>
<td>Construction Logistics and Community Safety</td>
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<td>PAT testing</td>
<td>Portable Appliance Testing</td>
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<td>RCD</td>
<td>Residual Current Device</td>
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<td>Asbestos Containing Materials</td>
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<td>UK Asbestos Training Association</td>
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<td>BES 6001</td>
<td>Responsible sourcing of construction products</td>
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<td>Local Authority</td>
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<td>RIDDOR</td>
<td>Reporting of Injuries, Diseases and Dangerous Occurrences Regulations</td>
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<td>Utilities Vendors Data Base</td>
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<td>PQQ</td>
<td>Prequalification Questionnaire</td>
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<td>PPE</td>
<td>Personal Protective Equipment</td>
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<td><strong>Greywater</strong></td>
<td>All wastewater generated in households or office buildings from streams without fecal contamination, i.e. all streams except for the wastewater from toilets</td>
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<td><strong>HSG</strong></td>
<td>Health and safety guidance produced by the Health and Safety Executive (HSE)</td>
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<tr>
<td><strong>Contractor</strong></td>
<td>Refers to tRIIO. tRIIO is the principal contractor when appointed by the client to control the construction phase of any project involving more than one contractor</td>
</tr>
<tr>
<td><strong>Subcontractor</strong></td>
<td>Anyone who directly employs or engages construction workers or manages construction work</td>
</tr>
<tr>
<td><strong>Sub-subcontractor</strong></td>
<td>Those having written contract with subcontractor to carry out portion of works</td>
</tr>
<tr>
<td><strong>ITP</strong></td>
<td>Inspection and Test Plan</td>
</tr>
<tr>
<td><strong>PUWER</strong></td>
<td>Provision and Use of Work Equipment Regulations</td>
</tr>
<tr>
<td><strong>WRAP</strong></td>
<td>Waste and Resources Action Programme</td>
</tr>
<tr>
<td><strong>FSC</strong></td>
<td>Forest Stewardship Council</td>
</tr>
<tr>
<td><strong>PEFC</strong></td>
<td>Programme for the Endorsement of Forest Certification</td>
</tr>
</tbody>
</table>
Notes