

PROCEDURAL REQUIREMENTS FOR THE MANAGEMENT OF TEMPORARY WORKS

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PURPOSE AND SCOPE

Temporary Works are an integral part of most construction and building projects, however they often comprise unique technical, legal and safety issues in respect of their planning, design, implementation and use.

This document details procedural requirements for the management of Temporary Works on National Grid Electricity Transmission construction projects. These requirements shall be developed by each Principal Contractor into an internal procedure or procedures forming an integral part of the Principal Contractor's Quality Management system with a view to demonstrating that they have in place effective arrangements for controlling all risks arising from the use of Temporary Works.

The procedural requirements have been developed and mandated to ensure National Grid discharges its duties under the Construction (Design and Management) Regulations 2015 (CDM2015) specifically those of 'Client' and to a lesser extent 'Designer'. In these roles National Grid has no direct influence over Temporary Works activities – appointment of designers, scoping of schemes, erection, use and dismantling of systems etc. – however they nonetheless have legal duties to ensure these are implemented competently and safely.

Regulation 4 of CDM2015 identifies that "...a client must make suitable arrangements for managing a project..." such that "...the construction work can be carried out, so far as is reasonably practicable, without risks to the health or safety of any person affected by the project..." and Regulation 8 states that designers and contractors appointed by the Client "...must have the skills, knowledge and experience, and, if they are an organisation, the organisational capability, necessary to fulfil the role that they are appointed to undertake, in a manner that secures the health and safety of any person affected by the project...". The application of this document contributes, in part, to ensuring those 'suitable arrangements' are in place and also, given that National Grid's contractual position in relation to the management of Temporary Works means that the evaluation of individuals engaged in such activities is not considered appropriate or viable, that the 'organisational capability' of Principal Contractors engaged by National Grid is suitable with respect to the safe management of Temporary Works.

It shall be noted that this document focuses on those procedural requirements deemed necessary to ensure National Grid discharges its duties under CDM2015 as defined above. It shall be the responsibility of each Principal Contractor to ensure the Temporary Works procedure incorporates those additional tasks and responsibilities necessary to meet its own legal responsibilities (for example as CDM2015 duty holders) and any business or other objectives.

PART 1 – PROCEDURAL

1 PROCESS

1.1 General Requirements

The basis of the Principal Contractor's Temporary Works procedure or procedures (herein referred to as the 'Temporary Works procedure') shall be the relevant requirements detailed in BS5975:2008+A1:2011, 'Code of practice for Temporary Works procedures and the permissible stress design of falsework' specifically Section 2: 'Procedural control of Temporary Works' plus all supporting and cross-referenced clauses – particular attention is drawn to the HSE online only publication SIM 02/2010/04. These requirements shall be taken as mandatory unless specifically supplemented, modified or deleted by this document.

The identity of the Designated Individual shall be included in, or be traceable via the Temporary Works procedure.

The Principal Contractor shall ensure an appropriately authorised (see below) Temporary Works Co-ordinator (TWC) is appointed for each and every National Grid Electricity Transmission construction project. Provided they are not compromised, a single TWC may discharge his/her duties on more than one project however there shall be one and only one TWC on any one project at any one time. Where there are two or more Principal Contractors on site refer to Section 8 for further guidance.

The TWC's mandate shall encompass all Temporary Works activities on a construction project from the commencement of his/her appointment to the conclusion of those works.

Any number of Temporary Works Supervisors (TWS) having responsibilities and competencies as defined in BS5975:2008+A1:2001 may also be appointed as considered necessary by the TWC. The appointment of TWS's shall be recorded, together with the scope and/or limits of their responsibilities. TWS competences shall be determined and procedurally managed by each Principal Contractor.

The TWC shall be appointed at as soon a time as practicable to enable them to adequately discharge their project responsibilities and shall be no later than two weeks after either the allocation of work or the appointment of the Principal Contractor by National Grid depending on the adopted contract strategy.

The TWC shall ensure that a Temporary Works Register is prepared which he/she shall then become responsible for maintaining for the duration of the project. The Temporary Works Register shall detail all Temporary Works identified on the project, together with the specific methods of control, key dates and current status of each of these activities.

The Design Intent Document (DID) and the Construction Phase Plan shall be used to inform the Temporary Works Register including risk assessments and method statements (RAMS). The TWC shall have auditable input into these documents as necessary.

Once appointed the TWC (or TWS if so delegated) shall attend Design Review and Hazard Review meetings as appropriate.

Once appointed the TWC (or TWS if so delegated) shall attend the 'Site (Weekly) SHESQ&P Meeting' and ensure the Temporary Works requirements are included in the 'Site (Weekly) Activity Schedule' (see UKBP/TP163)

The TWC shall liaise with the Principal Designer's Representative as necessary (i.e. proactively) or as requested (reactively) to ensure the cooperation of all duty holders specifically that between permanent and temporary works designers (HSE publication L153 Section 91 refers). Such specific interactions may take place as part of a larger meeting and shall be formally recorded within the minutes. Where each individual discharges other project duties (for example Site Manager in the case of the TWC) their roles as TWC and Principal Designer's Representative shall be specifically identified on the meeting attendee and/or distribution list.

Contractor Design Approval and Design Assurance (in accordance with UKBP/TP188 or other project design governance arrangements as appropriate) shall be applied to all those Temporary Works designs requiring a Category '3' design check (as defined in BS5975:2008+A1:2011, Table 1, 'Categories of design check') plus the following specific items of Temporary Works;

- Cable Sealing End Protection scaffolds,
- Temporary Scaffold Guards (or Power Line Crossing scaffolds),
- Super Grid Transformer (and similar equipment) installation

These requirements shall also apply, at the discretion of the Design Assurance Engineer (via consultation with the TWC) and dependent on the outcome of a risk assessment (see Section 8 for further details), to those requiring a Category '2' design check. Unless they have a Consequence of Failure Risk of CFR2 or CFR3 (see Section 8.8.1) designs requiring Category '0' and '1' checks are exempt from additional design governance requirements out with BS5975:2008+A1:2011

1.2 Buried Earthing

Where necessary earthing systems shall be managed as an 'underground service' in accordance with HSG47 'Avoiding Danger from Underground Services' (see Section 8). This shall be mandated via the Principal Contractor's management systems as appropriate (e.g. 'excavation procedure') and shall be cross referenced via the Temporary Works procedure.

1.3 Authorisation Requirements

1.3.1 Temporary Works Co-ordinator

Each TWC shall be formally authorised to discharge the role in accordance with this document and the scope of the project to which they are appointed. The purpose of the authorisation process shall be to demonstrate that a nominated individual is, and continues to be, sufficiently competent, experienced, practical, communicative and of the appropriate character and authority. The authorisation procedure shall be produced, managed and maintained by the Principal Contractor and shall, as a minimum, comprise;

- A formal review of a candidates relevant academic and professional qualifications plus relevant experience of Temporary Works design and co-ordination to establish initial suitability for the role.
- An assessment of the candidate's knowledge and understanding of relevant Health and Safety legislation and associated risk control methods.

- An assessment of the candidate's knowledge and understanding of this document and the associated National Grid and Principal Contractor procedures
- Successful completion of a Temporary Works Co-ordinator course (see Section 8) the suitability of which shall be determined by the Principal Contractor.
- Successful completion of Basic Electrical Safety Competence (BESC) training
- Mechanisms to ensure authorised individuals are kept up to date with changes to the relevant technology, legislation and procedures.
- The requirement that an individuals' authorised status is re-evaluated at intervals of no greater than three years.

Authorisations shall be confirmed in writing, with a successful candidate receiving a certificate/appointment letter or similar indicating the technical and procedural scope of the authorisation. They shall thereafter maintain a record log of the projects on which they discharge this specific role to demonstrate continual development. The record log shall form the basis of subsequent re-evaluations of an individual's authorised status

The Principal Contractor shall maintain an up to date list of authorised TWC's which shall be available on request for auditing purposes –via the 'Livelink /ECM' document management system. See UKBP/TP144, as appropriate, for further requirements relating to authorisation notifications and management.

The name of the TWC shall be recorded in the Construction Phase Plan.

Reference shall also be made to the Temporary Works Forum publication 'Competencies of the TWC', March 2012, TW/11/027 as necessary.

1.3.1 Temporary Works Supervisor

The Temporary Works procedure shall include an authorisation and formal project appointment process for all TWS's. The appointment process shall indicate the specific scope of their responsibilities (for example issuing a Permit to Load). Due to the specialist nature of the task National Grid has no specific requirements for the content of that authorisation process.

1.4 **Procedural Forms**

The Temporary Works procedure shall include (or make reference to), and detail the use of, specific forms that address the following procedural requirements mandated via this document;

- TWC/TWS Authorisation and Appointment
- Temporary Works Register (see 1.4.1 below)
- Design Brief
- Independent Design Check
- Temporary Works Drawing List (see 1.4.2 below)
- Issue of design information to site (may be via separate RAMS process)
- Site check during erection

- Permit to Load (bring into use)
- Maintenance during Use
- Permit to Unload (dismantle)

All forms shall, as a minimum, provide an audit trail of the requirements of this document and shall include version/change control (i.e. unique reference and corresponding date). Additional forms shall be produced as deemed necessary by the Designated Individual.

1.4.1 Temporary Works Register

The Temporary Works procedure shall include, and detail the use of, a Temporary Works Register (as referred to in BS5975:2008+A1:2011) which shall, as a minimum, include sections addressing the following for each and every item of Temporary Works;

- A unique reference that shall be used to trace each item of Temporary Works from 'cradle to grave' across all relevant forms and supporting documents,
- A short, unambiguous description of each item of Temporary Works,
- An unambiguous description of the area of the site/location to which each item of Temporary Works applies,
- A reference to each Design Brief and the date of its completion,
- Confirmation of the Design Check Category (Design Complexity Risk – see Section 8.8.1)
- Confirmation (i.e. Yes/No) whether additional Design Governance is required, e.g. Contractor Design Approval and Design Assurance as per TP188, and the date this was completed/confirmed,
- The name of each Design Engineer and date each design was completed,
- The name of each Design Checker and the date each design check was completed,
- The date the design was issued to site and cross reference to the appropriate RAMS
- The date the Permit to Load was issued,
- The date the Permit to Unload and/or Dismantle was issued,

Additional sections may be added as deemed appropriate by the Designated Individual (also see HSE on line document SIM 02/2010/04).

The Temporary Works Register shall include the Project description and number plus the name of the TWC and any change of TWC (name and date).

A copy of the first issue of, and every subsequent revision to, the Temporary Works Register shall be forwarded to the Lead Design Engineer (Assurance) - ref. UKBP/TP188 - or other nominated individual dependent on the project design governance arrangements, for information purposes. This person may make arrangements for the Register to be forwarded directly to the individual having responsibility for the Design Assurance of Temporary Works rather than act as an intermediary. The current version shall also be copied to the Principal Designer's Representative.

1.4.2 Temporary Works Drawing List

A site inventory recording the title and issue status (i.e. version control and recipients) of every Temporary Works drawing, schedule or other document used to articulate the requirements of the Temporary Works design. The Temporary Works Drawing List may be part of a stand alone process or be integrated with that relating to the management of Permanent Works drawings.