

THE ELIMINATION AND REDUCTION OF SHES RISKS AND HAZARDS DURING SCHEME DESIGN, INSTALLATION AND COMMISSIONING (ZERO BY DESIGN)

[Stop, Think, Act, Review]

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PURPOSE AND SCOPE

The purpose of this procedure is to define, in a single document, National Grid's detailed requirements for the elimination/reduction of Safety, Health, Environment and Security (SHES) hazards and risks across the scheme lifecycle of design, installation and commissioning. [NB: the design process also takes cognisance of the subsequent activities of alteration, repair, maintenance, use and decommissioning.]

Within this context this document targets two key objectives as follows.

- a) The definition of National Grid's wider strategic considerations and activities for achieving zero by design, which identifies requirements over and above those defined in TP137 – The Implementation of the 2007 CDM Regulations.
- b) Whereas TP137 specifies 'what' must be undertaken, this document specifies 'how' it is to be undertaken. In doing so this document integrates the SHES requirements already specified in the range of procedures defined in Appendix 1 - with the objective of providing visibility in one document of the whole joined up process.

NB: Much of the content of the 'procedure' section of this document is in direct support of TP137 - and may be transferred into that document in 2008 following time for a period of familiarisation and settling.

Instances may arise of an overlap of subject matter between this and the other procedures identified in Appendix A1. Should this arise, and to satisfy Quality Assurance governance requirements, the other document shall be taken as the definitive reference document.

This document also contains a handbook of good design practice.

This document applies to all schemes which comprise the Transmission Construction Electricity Capital Programme (and associated revenue schemes), and applies to all personnel with responsibilities associated with the Transmission Construction Electricity Capital Programme.

PART 1 – PROCEDURAL

1 RESPONSIBILITIES

The following identifies key requirements for those who have key responsibilities. They enlarge upon the generic duties provided in TP137.

1.1 Client

The 2007 CDM ACOP defines the key role of the Client as being 'to ensure that suitable management arrangements are in place'. This is achieved through enactment of both TP137 and this procedure.

However, experience has shown that the Client (Scheme Sponsor) can greatly influence the project SHES environment from a zero by design perspective by discharging one particular obligation – that is to ensure that sufficient time is allocated for the purposes of design, install and commission.

1.2 Designers

In discharging their duties, designers must proactively consider how zero by design will be achieved, and must enact the following.

- a) All design work must be undertaken in accordance with the principles of prevention in the CDM ACOP Appendix 7 (hierarchy of risk control) – see Appendix K.
- b) Consider the sequence of steps to be undertaken to build – alter – repair – maintain – use – extend and decommission. Consider the skillset of the people on site executing the task. Consider the instructions/information that those on site require to ensure an incident free environment.

- c) Consider examples of both good practice to incorporate into the design, and unsatisfactory practice to eliminate from the design.
- d) Consider the design at any interfaces – who is responsible?

1.3 CDM Coordinator

This is the most active role in ensuring that the zero by design criterion is achieved and, to this end, the role will be expanded beyond that in the 2007 CDM Regulations – to include a level of site activity surveillance. Prime requirements for the Coordinator role are:

- a) Both expert across the range of relevant procedural requirements – and ensuring that the zero by design strategy is enacted.
- b) Completion of an aide-memoire list of essential tasks – as defined in TP137.

1.4 Project Engineer

With overall responsibility for the management of the project, the Project Engineer can greatly influence zero by design. Within this context, experience has demonstrated that prime requirements for the Project Engineer comprise:

- a) Expert across the range of procedural requirements – and responsibility for enactment.
- b) Responsible for the production/updating of the Work Coordination document (see TP153).

[NB: For small projects with a larger maintenance content this task may be undertaken by Asset Management Maintenance Delivery.]

1.5 Principal Contractor

This is the key role for ensuring zero by design at the site level. Very importantly the Principal Contractor must:

- a) Ensure that all on site possess the appropriate competencies.
- b) Ensure that all on site are subject to a site induction – and understand its requirements.
- c) Ensure interface arrangements are managed.
- d) Ensure that each and every task is supported by a risk assessment and, where necessary, a method statement.
- e) Complete an aide-memoire list of essential tasks as defined in TP137.

1.6 Occupier

The Occupier, through the Senior Authorised Person, has the key role in ensuring safety from the system – see Appendix H.

1.7 Auditors

Those undertaking an audit role must enact the following.

- a) Pro-active in stopping poor/deficient practice

- b) Pro-active in identifying good practice – for enshrining as best practice

1.8 Line Managers

All line managers must promote two-way communications with their staff – they must be particularly aware of the issues on site and must support corrective actions.

2 ACHIEVING ZERO BY DESIGN

The means by which 'zero by design' will be achieved in Transmission Construction Electricity will comprise the following.

- a) The definition and enactment of a 'zero by design strategy'.
- b) The proactive assessment by the CDM Coordinator of whether (a) above is being satisfactorily enacted and, when necessary, subsequently ensuring that corrective action is taken.

3 ZERO BY DESIGN STRATEGY

The achievement of 'zero by design' is ultimately dependent upon the actions of people.

The strategy for achieving zero by design is therefore to define four key requirements which all duty holders across the scheme lifecycle must enact. Integral to the strategy is a framework of eleven supporting criteria which National Grid will put in place to complement and support the people dimension of the strategy.

- 3.1 The four key requirements to which all duty holders (ie. line managers and individuals) must enact are:

DUE PROCESS MUST BE RIGOROUSLY FOLLOWED

- a) ALL PERSONNEL MUST BE COMPETENT FOR THE DUTIES FOR WHICH THEY ARE RESPONSIBLE
- b) WHEN DIFFICULTIES ARE ENCOUNTERED OR ANTICIPATED THEY MUST BE BROUGHT TO THE ATTENTION OF LINE MANAGEMENT FOR RESOLUTION PURPOSES
- c) THE TASK OF BOTH PLANNING AND EXECUTION OF WORK MUST BE ACCOMPANIED BY A PROACTIVE THOUGHT PROCESS WHICH CONSIDERS HAZARDS AND RISKS, AND THEIR ELIMINATION OR REDUCTION (ie. Stop, Think, Act, Review)

- 3.2 The eleven supporting criteria which are integral to the strategy, in summary comprise the following.

- a) The definition of a suite of procedural requirements which require SHES to be considered, evaluated and managed at the key stages in the scheme lifecycle.
- b) The definition of technical policy/specifications for enshrining good SHES practice.
- c) Dissemination of, and training in, the wide range of legislation and supporting National Grid documentation with reference to the management and execution of SHES.
- d) Ensuring that all those with responsibility for decisions affecting SHES are competent to discharge those responsibilities.

- e) Site induction of all personnel prior to admittance to site.
- f) Organisation structures which facilitate a rigorous focus on the management and execution of SHES.
- g) SHES performance measures to both provide visibility of SHES performance and target areas for improvement through a suite of KPIs.
- h) SHES audit to provide assurance in the quality of SHES management and execution – and for targeting areas for improvement.
- i) The development of behaviour norms which require all those who carry out work associated with the capital programme to consider and enact SHES requirements consciously and routinely in the design, planning and execution of the work.
- j) Provision of a library of good practice and pitfalls of which to be aware.
- k) Provision of a process for incentivising designers to proactively consider and eliminate/reduce hazards and risks.

The following sections will detail the requirements of the above.

3.3 Procedural Requirements

Appendix A1 shows the procedural framework defining the hierarchy of major interconnecting documents. Each of these procedures specifies requirements for achieving Zero by Design. Appendix A2 redefines Appendix A1 in terms of a time line.

Appendix B expands upon Appendix A1 to define the mainstream SHES documentation flow for achieving zero by design across the scheme lifecycle, together with the interconnecting documentation for feeding into the mainstream.

Appendix C defines the scheme stage by stage methodology for reviewing SHES from a zero by design perspective.

The number in brackets in Appendix C cross refers to Appendix B.

Appendix D shows the typical format of a Site (Weekly) Activity Schedule which defines the SHES management arrangements for site specific tasks – see also TP163.

3.4 Technical Policy / Specifications

Appendix E defines the National Grid documentation framework associated with generic technical policy and specifications. Preparation of these documents must take into account hazard elimination / risk reduction. The requirements of these documents must be strictly adhered to.

3.5 Legislation

All personnel with defined responsibilities need to be cognisant of the range of legal requirements relevant to the work to be undertaken. Within this context the National Grid SHE Directorate of National Grid has prepared a suite of documentation for guidance and execution to enact the legislation. The following appendices summarise the documentation and documentation structure.

- a) Appendix F1 defines the hierarchy of H&S documentation emanating from the HSAWA applicable to the Construction Capital Programme, and Appendix F2 details the hierarchy of documentation within National Grid.

- b) Appendix G summarises the National Grid suite of SHES procedures (NB: this is for guidance purposes and may not be all embracing).
- c) Appendix H summarise the key legislation applicable to the Construction Capital Programme (NB: this is for guidance purposes and may not be all embracing).

3.6 Competency

To satisfy the 2007 CDM Regulations, procedural requirements require all those with formal roles within the Capital Programme to be declared a competent for the task(s) to be undertaken.

Within Construction, including our Suppliers (and including Maintenance Delivery Electricity for commissioning), formal assessment and authorisation arrangements shall apply. Furthermore, the commitment to zero by design is underpinned by the role of Core Construction who undertakes an assurance role with reference to sound SHES practices. Requirements are shown in Appendix I – this appendix expands upon section 3 of TP137 to more fully define the range of designer roles and the assurance role.

In addition, all those working on an operational site must be both authorised in accordance with the National Grid Safety Rules and obtained BESC accreditation.

3.7 Site Induction

Prior to admittance to site all personnel shall undergo site induction, with the objective of ensuring that they are fully cognisant with the hazards and risks associated with the site and the means by which SHES legal requirements and best practice requirements are maintained. Should site conditions change then all those that have undergone induction must be made cognisant of the change. National Grid will define appropriate induction arrangements based upon the requirement of the CDM 2007 ACOP.

3.8 Organisation Structure

Organisational arrangements for managing SHES are aligned with the line management structure and shown in Appendix J.

The TSHE oversees SHES performance and improvements and drives SHES policy, strategy and targets. The SHES Best Practice Group focuses upon lessons learned throughout the construction process – for factoring back into policy, process and competency.

3.9 SHES Performance Measures

National Grid KPIs for both measuring SHES performance and for identifying areas for SHES improvement target three areas.

- a) Behaviour – people culture
- b) Process safety (ie. operational failures)
- c) SHES management systems and risks

In addition a SHES performance hotspot report is prepared which identifies:

- d) Lost time injuries
- e) Reportable incidents

- f) Significant incidents
- g) Injuries (hospital/GP)

In addition, a suite of SHES KPIs apply specifically to Alliance working.

All incidents must be recorded in the COMPASS system which tracks the closedown of incident investigation recommendations – and enables searches for feeding into the KPI suite.

3.10 SHES Audit

This comprises routine audit on a project by project basis, random safety walks, and programmed schedule of internal audits – for purposes of both being assured of satisfactory SHES practice and targeting performance improvements.

3.11 Behaviour Norms

The development and adoption of behaviour norms, that is to say routine standards of behaviour, with reference to concisely and routinely thinking through tasks and actions from a SHES perspective is key to delivering 'zero by design'. All managers, supervisors and individuals are encouraged to enact such norms.

One such mechanism for developing appropriate behaviours is to adopt the STAR approach before any task or action is undertaken. That is:

- Stop - before you act
- Think - about the appropriateness of the action to be undertaken from a SHES perspective
- Act - in accordance with the correct SHES behaviour
- Review - upon what has been done, was it executed correctly, is remedial action required?

3.12 Library of Good Practice

The development of good SHE practice is dependent upon a reservoir of knowledge that both identifies good practice and stimulates thinking about the eradication of bad or deficient practice. To this end a SHES Asset Design Handbook is appended to this procedure. This handbook will be added to with evolving best practice.

4 PROCEDURE

This section defines detailed considerations, tasks and responsibilities to be undertaken throughout the project lifecycle. Much of this section directly supports TP137 – and may be transferred to TP137 when the latter is reissued in 2008.

4.1 Overview

Procedural requirements should be read in conjunction with Appendices A1, A2, B and C.

With reference to Appendices A1 and A2, it is essential that those preparing the respective documents do not operate in silos but cooperate and coordinate their activities. In this the CDM Coordinator plays an important role, and procedural requirements call for a Hazard in Design (HAZID) review at key stages involving all relevant parties, and the CDM Coordinator is charged with ensuring that this takes place.

With reference to Appendix B, defining the mainstream SHES documentation flow the process is effectively divided into the following areas.

- a) Derivation of generic equipment technical policy and specifications.
- b) System strategy considerations which result in a specific scheme being undertaken.
- c) Design Justification Report (see TP146) which underpins a specific Scheme Paper from the perspective of legitimising the design from a range of business considerations – not least of which is SHES.
- d) The CDM Pre-Construction Phase SHES Information Pack (see TP137) which collates the wide spectrum of SHES information which is essential for the subsequent site management of SHES.
- e) The CDM Construction Phase SHES Plan (see TP137) which defines
 - (i) Site establishment and site control requirements
 - (ii) Hazard management requirements during construction
- f) The Site (Weekly) Activity Schedule (see TP163) which defines the day by day tasks together with the task specific SHES management arrangements for executing the task. The content of this schedule is the culmination of all the previous work and documentation which was targeted in ensuring satisfactory SHES execution.

Appendix C defines the stage by stage means for reviewing the SHES aspects of the work. That is to say, how SHES requirements are reviewed, the document recording the decisions, and the document defining how hazards and risks are to be subsequently managed. This element of the process is key to eradicating and reducing the hazards and risks. The numbers in brackets in Appendix C link to Appendix B.

4.2 Technical Policy / Specifications / Type Registration

Inherent within the suite of generic technical policy, specifications and supporting documentation (see Appendix E) is the requirement to specify equipment which is satisfactory from a SHES hazard elimination/reduction perspective. The Asset Policy Manager will ensure that a Hazard Review of each document takes place prior to issue.

National Grid policy is to install and commission onto the system equipment that has satisfied the Type Registration process requirements. To achieve Type Registration the equipment must be subject to performance tests that satisfy the requirements of National Grid's Technical Specification. Prior to the award of Type Registration a Hazard Review must be undertaken by the National Grid Type Registration Engineer (see Appendix C) which again must review the equipment with reference to potential SHE hazards arising from build, alteration, repair, maintenance, use, extension and decommissioning. The CDM Coordinator must be assured that this review has been undertaken.

4.3 System Design Strategy and Investment Definition

The strategy for developing the power system (including replacement) is the starting point for all work which subsequently will have SHES implications.

When determining the strategy the National Grid System Design Manager will need to consider the following with reference to build, alteration, repair, maintenance, use, extension and decommissioning.

- a) New build as opposed to replacement in situ is likely to lead to a more incident free SHES environment.

- b) Developments that minimise the duration of time on site are more likely to lead to a more incident free SHES environment.
- c) Standardisation of design leads to familiarity with the work, minimisation of time on site, and refinement of best SHES practice.
- d) New technology and complex installations are more likely to embody risk.

Wide ranging considerations which must balance business benefits against SHES considerations will eventually result in one or more proposed schemes risk document(s).

Both the National Grid Assurance Design Engineer and the CDM Coordinator must be satisfied that system strategy fully considers zero by design and that system designs are underpinned by technical policy and specifications.

4.4 Option Selection and Development

The decision relating to which design is to be adopted and further developed will be recorded in the Design Justification Report (see Appendix B and TP146). In making this decision the wider business considerations must again be balanced against the potential for SHES hazards and risks. The CDM Coordinator must be assured that the appropriate debate has taken place before the decision is taken – and must notify the Client if it is considered that the debate has been insufficient, or that the outcome causes concern from a SHES perspective.

Integral to the development stage is the requirement to carry out a design HAZID review (see Appendix C) to brainstorm the design from a SHES perspective. The format of the HAZID is given in NSBP135. The CDM Coordinator must ensure that the HAZID takes place and that there is appropriate representation from all relevant parties.

All Designers at this, and subsequent stages, of the scheme lifecycle must apply the Principles of Prevention (hierarchy of risk control) for purposes of Hazard Elimination and Risk Reduction. This is summarised in Appendix K.

At this stage the CDM Coordinator is responsible for commencing the preparation of the CDM Pre-Construction SHES Pack. In doing so the CDM Coordinator must take cognisance of, and ensure satisfactory communication with, the SHES work associated with the design, installation and commissioning processes, all of which will run in parallel – see Appendix B,

4.5 Post Sanction Design

This continues the CDM Coordinator and Design activities identified in the development phase. A Design Review HAZID (see Appendix C) is again required as defined in NSBP135 – and the CDM Coordinator must ensure that this takes place.

4.6 Detail Design

During the detail design stage the following key events are required to take place.

- a) Those undertaking the detailed design must consider the Principles of Prevention (hierarchy of risk control) – see Appendix K – and must provide sufficient instructions to enable those on site to install the design within a satisfactory SHES environment.
- b) SHES reviews must be conducted in accordance with Alliance internal procedures.
- c) The Inaugural Health, Safety, Environment and Security meeting must be held at which the CDM Coordinator hands over the Pre-Construction SHES Plan to the Principal Contractor – see TP163.

- d) The Principal Contractor must incorporate the hazards and risk management requirements from the Pre-Construction Phase Information Pack into the Construction Phase SHE Plan. In preparing the latter the Principal Contractor must target two key areas as follows.
 - (i) The means by which the site is established, managed and stood down.
 - (ii) The means by which the hazards and risks associated with work on the site is managed and executed.

4.7 Design Compliance Audit

The Design Compliance Audit comprises an audit by Core Construction Design Assurance Engineers which evaluates whether the design is satisfactory for site installation to commence – see NSBP135.

In evaluating the design the Assurance Design Engineer must consider how the design will be implemented on site. In doing so reference must be made to both the Pre-Construction Phase SHES Information Pack and the Construction Phase SHES Plan with the objective of ensuring that the hazards and risks have been considered in the resulting design. Where deficiencies exist the Assurance Design Engineer must communicate with the Supplier Design Engineer and the deficiency addressed. The CDM Coordinator must be satisfied that this process, including a HAZID review, is enacted.

4.8 Site Installation

The site installation stage may be effectively sub-divided into three areas as follows.

- a) Pre-site access arrangements
- b) Site establishment
- c) Site work execution

4.8.1 Pre-Site Access Arrangements

Prior to site access the following must be in place.

- a) Completion of the Construction Phase SHE Plan must be to a point that site installation can commence. The Plan must then be disseminated, through the site weekly SHES meeting, to all those who need to be cognisant of the content. This is the responsibility of the Principal Contractor.
- b) Site Mobilisation Plan must be prepared. This is the responsibility of the Principal Contractor.
- c) Inaugural SHES meeting must have been held (see section 3.6). This is a joint responsibility of the CDM Coordinator, Principal Contractor and Occupier.
- d) Design Compliance Audit for relevant elements of the work must be complete. Responsibility for ensuring that drawings do not go to site until this has been accomplished rests with the Project Engineer.
- e) First site (weekly) SHES meeting must be held (at least six weeks prior to site access). This is the responsibility of the Principal Contractor – see TP163 and TP137.
- f) Work Coordination Document (see TP153) must be complete. This is the responsibility of the Project Engineer, or where the maintenance element predominates, Maintenance Delivery Electrical.

- g) Site Quality Plan and Programme must be in place. This is the responsibility of the Project Engineer.
- h) Site Induction Package must be in place. This is an inherent requirement of the Construction Phase SHE Plan – but of such an importance to be identified independently. This requirement is covered in detail in TP163 and is the responsibility of the Principal Contractor. NB: A DVD is available to support the Site Induction process.
- i) CDM demarcation zone must be agreed (defined in the Pre-Construction SHES Pack) and SHES management arrangements are in place – see TP137.
- j) Authorisation of Persons and Competent Persons must be in place to satisfy the National Grid Safety Rules – see TP163.

The CDM Coordinator must ensure that all of the above is enacted.

4.8.2 Site Establishment

Site establishment must take place in accordance with a Site Mobilisation Plan – see TP163 – which will draw heavily from the CDM Construction Phase SHES Plan. As a minimum it must comprise a checklist that confirms that statutory and best practice requirements are in place, eg.

- a) CDM demarcation zone accords with agreed Plan – see detailed arrangements in TP137
- b) Site Control of Premises Transfer Agreement in place
- c) Cabins/lay down areas accord with Plan
- d) Site security in place
- e) All personnel authorised in accordance with National Grid Safety Rules
- f) Site induction arrangements in place and operational
- g) First aid facilities in place
- h) Welfare arrangements (mess rooms, toilets, drinking water etc) in place
- i) Statutory certificates in place
- j) Emergency plan and fire procedures agreed and in place
- k) Accident book in place
- l) COSHH arrangements in place

etc

Responsibility for the above will rest with the Principal Contractor. The CDM Coordinator must ensure that the above has been enacted.

During this period close cooperation and coordination must take place between the Principal Contractor and National Grid Maintenance Delivery Electricity's Site Occupier.

4.8.3 Site Work Execution

This is the key stage of the work where inadequately managed hazards and risks manifest themselves as incidents.

The procedural mechanism for managing the SHES requirements for this stage of the work is as follows.

- a) Site induction must take place – see TP163. This is the responsibility of the Principal Contractor.
- b) Dissemination of the requirements of the Construction Phase SHES Plan to all Contractors through the site (weekly) SHES meetings must take place. This is the responsibility of the Principal Contractor.
- c) Management of SHES through a Site (Weekly) Activity Schedule – see Appendix D. The schedule must be underpinned by the work of a group who, with reference to the programme of works and Site Quality Plan, programme the future day by day tasks and consider the SHES management and execution requirements. Guidance on the requirement to prepare method statements is provided in TP163.
- d) Site control of design decisions. Satisfactory management of this area is key to site incident control. In general these fall into two categories.
 - (i) Additional design decisions, particularly those associated with temporary works. This frequently involves
 - structural behaviour
 - vertical and horizontal loading limitations of equipment
 - clear definition of step by step procedural requirements
 - inadequate investigation of site services and hazardsSee Appendix O for temporary works requirements.
 - (ii) Design changes. This must be managed in accordance with the Supplier's own design change control procedure. This procedure must reference the requirement for consultation with the Assurance Design Engineer for design compliance audit requirements.
- e) Construction operates an authorisation process (see TP144 and TP141) for those with formal roles defined in National Grid procedures – see Appendix I. However, there is a further level of competency evaluation associated with those carrying out installation works, eg.
 - (i) erection/inspection of scaffolding
 - (ii) use of power equipment
 - (iii) inspection of lifting equipment
 - (iv) excavationsetc

The competency requirements for these tasks are specified in TP163. Responsibility for ensuring that these competencies are in place rests with the Principal Contractor.

- f) All work on an operational site must be carried out in accordance with National Grid Safety Rules. Responsibility for ensuring that this takes place resides jointly with the Senior Authorised Person and Principal Contractor. This requirement must be evaluated during the Site Weekly SHES meeting – see TP163.
- g) In addition to the above, audits of satisfactory work execution from a SHES perspective must be carried out to be assured of the standard of work – and to provide feedback on areas for improvement. With reference to routine audits on each and every site, this is enacted through sensible monitoring (see TP137) and comprises:
 - (i) Safety from the system - carried out by National Grid Maintenance Delivery Electrical (MDE)
 - (ii) General safety - carried out by Construction Site Engineer
- h) Individual safety during site work is dependent upon the behaviour norms of each and every individual – requiring a routine behavioural practice of
 - (i) Stop
 - (ii) Think
 - (iii) Act
 - (iv) Review

To aid this thought process Appendix L provides a listing of historical problem areas leading to actual or potential incidents.

The CDM Coordinator must ensure that all of the above is enacted.

4.9 Commissioning

Commissioning requirements are specified in TP106A. Each commissioning panel meeting must carry out a HAZID review – see Appendix G – and the CDM Coordinator must be assured that this takes place. In addition, routine requirements of the commissioning process must be recorded in the Construction Phase SHES Plan.

The execution of commissioning from a SHES perspective must also be managed through the weekly SHES meeting – see TP163 – and through the Site (Weekly) Activity Schedule.

4.10 Post Project Review

An inherent part of the post project review – see Appendix B – is an evaluation of lessons learned and subsequent recommendations. These must be forwarded to the SHES Best Practice Group for consideration and subsequent inclusion in policy, process, training and toolbox talks. The CDM Coordinator must ensure that all of the above is enacted.

4.11 Cooperation, Coordination and Communications

Cooperation, coordination and communications is an essential requirement of the 2007 CDM Regulations. This requires coordination between the task/documentation streams – see Appendix A2 – and the various meetings – see Appendix M – and the meetings at which decisions are taken and from which documentation is prepared and programmes of work emanate.

Appendix M defines the interacting meetings and those charged with ensuring cooperation and good communications.

Ensuring that cooperation, coordination and good communications are enacted – not only as a prime role for the CDM Coordinator – but the responsibility of all duty holders.

5 HEALTH & SAFETY CHECKLIST

The Health & Safety Checklist – see Appendix C – is based upon a list in the HSE document 'Health & Safety in Construction'. It should be used as a reference document when considering the management actions for risk and hazard reduction at the weekly SHE meeting – and as a checklist for sensible monitoring.

NB: This document is contained in this procedure for illustrative purposes only and is not necessarily up to date. The up to date document will reside in TP163 which will elaborate on use of the document.

6 FORMS AND RECORDS

NGUK/Con/BP 199.01 Health & Safety Considerations for Site Installation (Appendix D)

NGUK/Con/BP 199.02 Site (Weekly) Activity Schedule (Appendix E)

PART 2 - DEFINITIONS AND DOCUMENT HISTORY

7 DEFINITIONS

7.1 Hazard Review

A brainstorming session which considers the elimination of hazards and reduction of risks. The person leading the Hazard Review must consider the participation of appropriate stakeholders.

7.2 HAZID

As defined in NSBP135.

8 AMENDMENTS RECORD

Issue	Date	Summary of Changes / Reasons	Author(s)	Approved By (Inc. Job Title)
1	October 2006	New document	Keith Harker Construction Services	David Poulton Construction Manager
2	April 2008	Renumbered from NSBP 199 Issue 1 Document revised in line with TP137, CDM 2007 and TP189A	Martyn Hanlon Core Construction	Keith Harker Construction Services Manager