

ATTACHMENT 1: HEALTH AND SAFETY REQUIREMENTS

1.1 Health and Safety Requirements for Construction Work >\$250,000

1.1.1 Accredited Corporate Health and Safety Management System

For all Construction Projects valued at \$250,000 or more, the Contractor shall have an accredited Health and Safety Management System. The system must be accredited to the requirements of the following:

1. AS4801:2001 – Occupational Health and Safety Management System

As well as either:

2. NSW Government Occupational Health & Safety Management Systems Guidelines 4th Edition and be accredited by Department of Financial Services prior to the Contractor being awarded a Contract to deliver works and commencing work on site.
3. Accreditation to the Australian Government Building and Construction Occupational Health & Safety scheme administered by the Office of the Federal Safety Commissioner

1.1.2 Legislative & TransGrid Requirements

All work shall be carried out in strict accordance with the Work Health and Safety Act and Regulation 2011 as well as TransGrid specific Health and Safety requirements.

TransGrid expects all contractors to be committed to ensuring a safe workplace is a priority and have safe systems of work to prevent illness and injuries at work and be able to demonstrate this for the duration of the project life cycle from tender phase to site completion.

Audits, inspections and general workplace monitoring will be carried out in accordance with the Work Health and Safety Legislation 2011.

1.1.3 Risk Management

The Contractor is responsible for ensuring all hazards associated with work to be performed have been identified, assessed and appropriate controls implemented prior to any work commencing. This includes undertaking risk assessments as well as the provision of Work Method Statements where required.

1.1.4 Safety Training

The Contractor shall be responsible for identifying and providing any Health and Safety training required for work under the Contract. The Contractor shall provide evidence that the workers have received such training and are competent in the type of work to be performed under the Contract.

TransGrid may require any Contractor's workers, at the Contractor's expense, to attend further site safety induction and training when considered necessary such as work within the scope of TransGrid Power System Safety Rules in high voltage areas.

1.1.5 Health and Safety Induction

All persons including visitors to TransGrid locations shall have an induction, which shall include:

- ♦ Location and Site orientation;
- ♦ Scope of Work
- ♦ Personal Protective Equipment requirements eg. Safety helmet, safety shoes, high visibility clothing, etc.
- ♦ Any other relevant information required for the safety of visitors whilst at the location.

The Contractor is responsible for ensuring all workers are adequately informed of and comply with site emergency response procedures.

1.1.6 Protective Clothing and Equipment

The Contractor shall be responsible for ensuring their workers and subcontractors are suitably dressed at all times. In all cases any kind of undressed appearance or use of leisure clothing (eg. beachwear, thongs, open footwear, singlets etc.) is not acceptable.

The Contractor shall also comply with any legislative requirements for personal protective equipment or clothing. The Contractors shall also comply with any directives issued from time to time by TransGrid that requires specific protective clothing or equipment to be used whilst carrying out work under the contract.

The Contractor and their workers are responsible for the supply and maintenance of protective clothing and equipment and for ensuring staff are trained in its correct use as appropriate.

All personnel must wear long sleeve shirts, trousers, safety helmets, enclosed footwear and high visibility shirts or vests when entering the TransGrid substation and the construction site where work is underway.

1.1.7 Construction Work

Shorts and short sleeve shirts are not permitted for construction work on TransGrid sites or when carrying out work on TransGrid assets.

The Contractor shall ensure all workers and visitors wear long sleeved high visibility shirt or vests over long sleeve shirts, long trousers or combination high visibility overalls made of an appropriate material, safety helmets and safety footwear.

When working on or near electrical equipment, clothing shall have flame retardant properties not inferior to 185gsm and be 100% cotton drill material.

1.1.8 Incident Notification, Investigation and Reporting

Whilst undertaking work under the Contract and in addition to any legislative requirements the Contractor shall immediately notify TransGrid of:

- ♦ All incidents involving the death or serious injury of its workers or those of its Sub-Contractors, and
- ♦ All dangerous occurrence or “near miss” incidents, medical treatment injury or lost time injuries.
- ♦ All of the above situations require the Contractor to complete and provide to TransGrid an Incident Investigation report within 5 days of the Incident occurring. This investigation is to include any root causes identified, corrective actions determined and an action plan alerting TransGrid as to how actions will be closed out.

1.1.9 Work Principles

- ♦ The Contractor is responsible for maintaining a clean, safe and tidy work area at all times.
- ♦ The Contractor shall provide and maintain appropriate sanitary and washing facilities for its staff and those of its subcontractors. These facilities shall be in accordance with the Work Health and Safety Regulation 2011 and the Safe Work Australia Cover Code of Practice - Managing the Work Environment and Facilities.
- ♦ An acceptable standard of staff discipline is to be maintained at all times. The use and possession of illicit drugs or alcohol on site is strictly prohibited.
- ♦ Security at TransGrid sites is required to be maintained at all times.
- ♦ All TransGrid buildings, plant, any identified area and vehicles are designated as “No Smoking” areas.

1.1.10 Principal Contractor

It is the Principal's intention that, on award of the Contract, the successful Tenderer will be appointed as the Principal Contractor for the Construction Project. The Tenderer shall therefore engage and nominate an appropriately qualified and experienced person who can competently perform the duties and responsibilities of a Principal Contractor pursuant to the Work Health and Safety Act 2011 and the Work Health and Safety Regulation 2011.

The Principal reserves the right from time to time to terminate the appointment of the Contractor as Principal Contractor and request a new nomination, or alternatively will appoint another appropriately qualified person as Principal Contractor.

There can only be one Principal Contractor per Construction Project at any specific time. The Principal Contractor will be required to manage Contractors engaged by TransGrid to supply High Voltage plant and equipment to ensure this requirement is achieved.

1.1.11 Authority and Duties of Principal Contractor

The Contractor shall, at its own expense directly engage, employ and remunerate, throughout the period of the Contract, an appropriately qualified and experienced person who can competently perform the duties and responsibilities of a Principal Contractor pursuant to the Work Health and Safety Act 2011 and the Work Health and Safety Regulation 2011 at each location where work is carried out under the Contract.

Once appointed as Principal Contractor and pursuant to all the requirements of Chapter 6 of the Work Health and Safety Regulation 2011, the Contractor is permitted to exercise only such authority of the Principal Contractor as to enable it to properly discharge the responsibilities and duties imposed in relation to the work under the Contract.

Without limiting in any way the responsibilities of the Contractor, the Contractor in its capacity as Principal Contractor shall:

- ♦ Prior to work commencing on site the Principal Contractor shall be required under contract to facilitate a Risk Management Workshop to allow all associated stakeholders including designers, contractors, sub contractors and TransGrid representatives to proactively discuss how constructability risks will be managed.
- ♦ Be responsible for ensuring all legislative requirements under the Work Health and Safety Regulation 2011, including the development of a site specific Health and Safety Management Plan, Work Method Statements, Health and Safety induction training, risk management, including measures to control risks are implemented and maintained;
- ♦ Provide induction for all workers and visitors required to access the Principal Contractor's construction site.
- ♦ Coordinate work program with TransGrid and other Contractors working within the substation during the construction program to ensure minimal constraints on the delivery of the work.
- ♦ Maintain all Health and Safety records, Health and Safety Management Plans, Work Method Statements, Hazardous Substance Register, , risk register for site risks, notices and other documentation required by the Work Health and Safety Regulation 2011 and make readily available to the Principal at all times;
- ♦ Be responsible for the work under the Contract at all times until the work is completed;
- ♦ Notify the Principal immediately in the event that it is no longer able to carry out its duties and responsibilities as Principal Contractor pursuant to the Work Health and Safety Regulation 2011 in relation to the work under the Contract;
- ♦ Periodically and upon completion of the Contract provide copies of all training records and associated records to the Principal's nominated officer;
- ♦ Be responsible for any and all other duties required of it as Principal Contractor under the Work Health and Safety Regulation 2011;
- ♦ Ensure that before construction work begins, signs clearly visible from outside the Construction Site are placed on display including the name and contact telephone numbers, including an after hour's emergency telephone number of the nominated Principal Contractor.
- ♦ Ensure physical delineation is present at all times between the Principal Contractor's construction site and other areas under TransGrid access requirements. E.g. Fencing and gates to ensure secure access and clear delineation.

The Contractor shall indemnify the Principal against any loss or expense that the Principal incurs or any claim made against the Principal by a third party arising from the negligent act or omission of the Contractor in performing its duties as Principal Contractor pursuant to the Contract or the Work Health and Safety Regulation 2011.

Where the Contractor is a consortium, either, both or all members of the consortium shall nominate in Attachment 5 who will be appointed as the Principal Contractor pursuant to the Work Health and Safety Act 2011 and the Work Health and Safety Regulation 2011 to represent all entities.

1.1.12 Health and Safety Management Plan (Site Specific Safety Management Plan)

The Contractor shall ensure that a Site Specific Health and Safety Management Plan is prepared and submitted to TransGrid before any site work commences. As a minimum the plan must address all the requirements of the Health and Safety Regulation 2011 part 6.4 clauses 309, 310 and 311. The Contractor shall also ensure any Sub-Contractor completing construction works over \$250,000 also prepare a Site Specific Health and Safety Management Plan for their work scope in accordance with the Principal Contractors Health and Safety Management Plan.

Evidence to support the Contractors ability to prepare and manage Site Specific Health and Safety Management Plans shall be included in the tender, including:

- ♦ History of any previous management of Health and Safety Plans;
- ♦ Management Structure expected for the contract including the person to perform the duties and responsibilities of the Principal Contractor, qualifications and experience of other staff, including sub contractors relevant to the work being undertaken;
- ♦ How risks will be effectively managed for the duration of the contract;
- ♦ Examples of Safe Work Method Statements;
- ♦ Health and Safety Performance records including records of accident/incidents and any Health and Safety Regulator prosecutions or Provisional Improvement Notices issued in the last 3 years.

1.1.13 Induction and Training for Construction Work

1.1.13.1 General Health and Safety Induction for Construction Work

The Contractor is responsible for ensuring that each worker including Sub-Contractors has undertaken and received certification in the General Induction for Construction Work or the national recognised Work Safely in the Construction Industry Induction course prior to commencing any work on site. Evidence of such training shall be supplied to TransGrid for each employee required to work on site on request.

1.1.13.2 Site Specific Health and Safety Induction for Construction Work

The appointed Principal Contractor shall, at their expense, prepare and provide site-specific Health and Safety induction training prior to commencing any work on the site. This also applies to any new workers who may be recruited to work on the site or assigned to the project after initial commencement. It is the Principal Contractors responsibility to provide this training.

Following site induction the Principal Contractor shall ensure that each worker acknowledges attendance at the induction session by signing an Induction Attendance Sheet. The Principal Contractor shall make induction records available to TransGrid when requested.

1.1.14 Pre-Work Risk Assessments & Safe Work Method Statements

Pre-Work Risk Assessments are required to be carried out prior to commencing any work under the contract. Records of Pre Work Risk Assessments shall be kept for a period of six months and may be audited by TransGrid at any time.

Safe Work Method Statements are required for all work classified as High Risk Construction Work under the Work Health and Safety Regulation 2011. SWMS's must describe how the work is to be carried out, identify the hazards associated with the work activities, assesses the safety risks, describes the control measures that will be applied to do the work activities, and includes a description of the equipment used in the work, the standards or codes to be complied with, the qualifications of the personnel doing the work and the training required to do the work and must be held at the immediate work site during the work. These may be audited by TransGrid at any time, and when requested, must be provided to TransGrid prior to commencing the work.

1.1.15 Health and Safety Audits and Inspections

The Contractor shall conduct periodic independent audits of the implementation of their Health and Safety Management Systems and Safety Management plans whilst undertaking work for TransGrid and supply a copy of the audit report to TransGrid.

The Contractor shall provide an audit and inspection schedule to TransGrid prior to possession of site which will be implemented during work under contract.

For all contracts requiring Site Specific Health and Safety Management Plans, an initial audit must be undertaken by the Contractor in the presence of a TransGrid representative within 3 months of commencement of site works.

TransGrid may also conduct system audits and random inspections of the Contractor's implementation of their Health and Safety Plan or works being conducted.

1.1.16 Asbestos Management and Control in the Workplace

TransGrid has Asbestos Registers detailing the location of building materials and equipment that contain bonded asbestos products and an Asbestos Management Plan. No work is to be undertaken on any building materials or electrical equipment until TransGrid provides confirmation of the status of any potential asbestos containing materials and the appropriate controls are implemented.

The requirements for managing asbestos including asbestos removal are detailed in TransGrid's Procedure "Asbestos Management Plan" GD HS G2 048. At the time of seeking tender for asbestos related works a copy of the Asbestos Management Plan will be made available, and on award of the contract the contractor will be required to comply fully with the requirements of the Asbestos Management Plan. All works associated with Asbestos removal or remediation shall be conducted in accordance with Work Health and Safety legislation.

1.1.17 Confined spaces

All work to be carried out in a confined space shall be in accordance with Work Health and Safety Regulation 2011 part 4.3 and Australian Standard AS 2865 "Safe Working in a Confined Space".

1.1.18 Electric and Magnetic Fields (EMF)

Electric and magnetic fields may interfere with cardiac pacemakers. All staff required to enter or work in switchyards, climb towers or who are in the vicinity of high voltage/high current equipment are to be informed of the possibility for interference.

1.1.19 Electrical Practices for Construction Work

All electrical practices carried out as part of construction work shall be in accordance Work Health and Safety Regulation 2011 part 4.7 as well as Australian Standard 3000:2000 "Electrical Installations" (known as the Australian/New Zealand Wiring Rules). AS 3760 "In Service Safety Inspection and Testing of Electrical Equipment" shall be observed to maintain safety of electrical equipment on site.

The Contractor shall install a Residual Current Device (earth leakage circuit breaker device) at the immediate point of electricity supply from a TransGrid electrical power service outlet. Mobile power equipment such as diesel generators shall also be equipped with earth leakage devices.

1.1.20 Excavations in Substations, Near Cables, Pipelines & Requirement for Excavation Permits

Where work involves excavations, the Site Specific Safety Management Plan shall provide procedures for locating cables and pipelines and for the safe work practices in the event that a cable is unearthed.

Within substations and its perimeters, no excavations shall be conducted without **an excavation permit issued by TransGrid** and the existence of any underground services and earth grid shall be confirmed with TransGrid prior to the commencement of any excavation work.

To safeguard against hazards caused by the tearing or breaking of earthing conductors (exposed or buried) the Contractor shall adopt TransGrid's Earthing Bridging and Repair Work Method Statement D2010/13356 for the purposes of installing earthing bridging leads, repair of broken earthing conductors and removal of earthing

bridging leads. In addition to the above mentioned Work Method Statement, the Contractor shall comply with the requirements of Excavation Permit – D2010/13417 for any excavation work on or near earthing conductors.

Notwithstanding the above, work near cables shall be performed in accordance with TransGrid Standard – Power System Safety Rules

1.1.21 Fire Protection

The Contractor shall be responsible for the fire protection of its own buildings, plant and equipment and shall assist in the fire protection of the buildings, plant and equipment of TransGrid and other Contractors. The method of complying with this requirement shall be detailed in the Site Specific Safety Management Plan and Safe Work Method Statements where hot work is being undertaken.

The Contractor shall provide additional adequate fire fighting equipment as appropriate in areas where the Contractor is working and shall ensure that all site staff are trained in the correct use of this equipment.

1.1.22 First Aid

The Contractor is responsible for the provision of first aid services for their workers and those of its Sub-Contractors, and for providing transport for injured persons to hospital or other appropriate destination as and when required.

Vehicles that are generally used for site work shall carry a first aid kit complying with Work Health and Safety legislation.

1.1.23 Hazardous Substances

The Contractor shall:

- ♦ Maintain a register of all hazardous substances and dangerous goods used or stored by them on a TransGrid site. Such register shall be readily available for inspection by TransGrid and shall include current Safety Data Sheets.
- ♦ When requested, provide a copy of such register and any subsequent updates to TransGrid;
- ♦ Comply with the requirements of the relevant legislation in regard to risk assessments for the use, storage, handling, transport and disposal of hazardous substances and dangerous goods;
- ♦ Have in place procedures to control an incident involving a spillage/leakage of a hazardous substance or dangerous goods

1.1.24 High Voltage Switchyards and Substations

All work in High Voltage Switchyards shall comply with TransGrid Standard – Power System Safety Rules

Contractors shall ensure that all staff working in a switchyard or substation are trained and assessed as competent under the Power System Safety Rules as appropriate for the work to be undertaken. This includes being warned and instructed in the dangers with live, high voltage exposed conductors and apparatus, the identification of high voltage conductors, insulators, apparatus, supporting structures, earthing conductors, and the responsibilities of persons allocated to work under an Access Authority.

When working in High Voltage Switchyards or substations, unless otherwise directed or specified, the Contractor, its workers and those of its Sub-Contractors shall wear long sleeved high visibility shirts (or vest), long trousers or combination overalls made of an appropriate material, safety helmets and safety footwear. When working on or near electrical equipment, clothing shall have flame retardant properties not inferior to 185gsm and 100% cotton drill material.

1.1.25 Hot Work

Hot Work in fire risk situations shall be carried out in accordance with TransGrid's Hot Work Procedure. The Contractor shall consult with the TransGrid Site Manager regarding Access Authority requirements, Environmental Rules Authorisation and control measures prior to commencing any hot work.

All activities shall be assessed by the Contractor for Fire Risk as part of the Pre-Work Risk assessment. Where hot work is being undertaken i.e. cutting or welding work, and a fire risk/safety risk is identified it shall be assessed and

control measures prescribed by an appropriately authorised person under TransGrid's Environmental Rules. The control measures shall be documented on a 'Fire Risk Assessment and Control Measures' form to ensure the work can be conducted in a safe manner. The documented control measures shall be implemented prior to the commencement of work and the 'Fire Risk Assessment and Control Measures' form shall be retained by an appropriately authorised person (as per TransGrid's environmental rules) who is in charge of the work.

It is the contractor's responsibility to ensure their workers and sub-contractors are appropriately trained to carry out hot work. This training is separate and additional to any Hot Work training required for Environmental Rules Authorisation required by TransGrid.

1.1.26 Mobile Plant and Equipment (eg. Cranes)

Work involving mobile plant and equipment near electrical conductors shall be carried out in accordance with TransGrid Power System Safety Rules

The Contractor must consult with the TransGrid Site Manager regarding control measures and training prior to commencing any work involving mobile plant near electrical conductors. No work involving mobile plant near electrical conductors is to proceed until all TransGrid Safety Rules requirements have been implemented. This requires operators of mobile plant to be authorised under the Safety Rules.

Completion of an appropriate risk assessment and the earthing of mobile plant or vertical extendible equipment when working within safe clearance distances to conductors as stipulated in TransGrid Power System Safety Rules is required.

Mobile plant operating on construction sites must conform to Work Health and Safety legislation.

The use of cranes with a free fall feature is strictly prohibited on all TransGrid projects and operational sites.

1.1.27 Noise

All work undertaken and all equipment used for noise omitting work shall comply with the Work Health and Safety Act 2011 and Regulation 2011.

1.1.28 Performance Reports

It is a contractual requirement that Health and Safety performance reports including incident statistics shall be submitted by the Contractor during the contract work on a monthly basis.

The following shall also be maintained by the Contractor and made available on request:

- ♦ Hours worked by the Contractor and its Sub-Contractors on a monthly basis
- ♦ Inspection reports, audit reports and any non-conformances identified
- ♦ Incident statistics (including incident frequency rates)
- ♦ Risk Assessments conducted
- ♦ Incident investigation reports
- ♦ Records and minutes of Health and Safety meetings and tool box meetings.
- ♦ Induction and training records
- ♦ Safety equipment records
- ♦ Records of any complaints received and action taken

1.1.29 Radio communication equipment/mobile phones

Radio equipment shall be licensed as required and these licences shall be made available for inspection on demand by the Inspectors from the Commonwealth Department of Communications.

The use of radio communication equipment and mobile phones near computer and PLC equipment is prohibited. This equipment is generally located in Switch Rooms or Control Rooms.

1.1.30 Radio Frequency Radiation

Contractors should familiarise themselves with the “Site Radiation Folder” (where available) or use a personal radiation monitor to check the work area.

All “in service” Microwave (MW) dishes and antennas are to be regarded as a potential radiation hazard unless site radiation folder information indicates otherwise.

An Amendment return form shall be completed and sent to TransGrid whenever work is performed that modifies, upgrades or removes radio transmission equipment at any site.

1.1.31 Safety Hazard Notices

TransGrid may issue Site Safety Hazard Notices and shall charge the Contractor for any costs incurred in rectifying the hazard if the Contractor fails to comply.

1.1.32 Power System Safety Rules

All work under Contract shall comply with TransGrid Power System Safety Rules.

The Contractor shall consult with the TransGrid Site Manager regarding permit to work requirements and Power System Safety Rules Authorisation.

The Power System Safety Rules set down the requirements to ensure the safety of personnel when apparatus is being installed, commissioned, worked on in service or taken out of service. Contractors shall ensure that all staff are trained and assessed as competent under the Safety Rules as appropriate for the work to be undertaken.

1.1.33 Traffic Management

The Contractor must consider and assess the traffic implications of its activities and implement appropriate control measures including the development and implementation of Traffic Management Plans as determined by a risk assessment.

1.1.34 Working at Heights

The requirements and responsibilities for controlling the risks associated with working at heights are detailed in the following TransGrid Procedures, ENA and Work Health and Safety legislative documents and must be applied by the Contractor and their sub-contractors when working for TransGrid:

- ♦ Work Health & Safety Regulation 2011
- ♦ ENA NENS 05-2003 “National Fall Protection Guidelines for the Electrical Industry”;
- ♦ TransGrid Procedure: Working At Heights – GD HS G2 025
- ♦ TransGrid Guideline: Working At Heights – Transmission Line Structures GD HS G3 005
- ♦ TransGrid Guideline: Working At Heights – Communications Structures GD HS G3 006
- ♦ TransGrid Guideline: Working At Heights – Substations GD HS G3 007
- ♦ TransGrid Guideline: Working At Heights – Elevating Work Platforms GD HS G3 008

The above requires, in the first instance, the identification and implementation of control measures for working at heights to be undertaken in accordance with the hierarchy of controls. If it is determined that the hazard cannot be eliminated or the work performed from ground level, consideration shall be given to the use of the following specific control measures for working at heights in the order described:

- i) A stable and securely fenced platform, such as scaffolding or other form of portable work platform. If this is not reasonably practicable for the work, then:
- ii) Secure perimeter screens, fencing, handrails or other forms of physical barriers that are capable of preventing the fall of a person. If this is not reasonably practicable for the work, then:
- iii) Other forms of physical restraints capable of arresting the fall of a person from one level to another.