HSEQ Requirements Protocol

H-SYS-PRT-006

NOTE: Ertech's Business Management System is adopted by Ertech and other companies within The Ertech Group. While the documents are branded as Ertech, they apply equally to all group companies that have implemented the system.

Engineering confidence, **every day.**

Contents

1 Introduction

This document has been developed to ensure Ertech projects and Ertech's supply chain (subcontractors and suppliers) are made aware of the Ertech minimum HSEQ requirements during the procurement, construction and completion phases of an Ertech project.

2 (Sub)Contractor's Obligations

2.1 Legal Requirements

The Subcontractor must, in providing information and in performing the work, provide and maintain so far as is practicable, a workplace that is safe and without risk of harm to its employees, members of the public and the environment, including cultural, heritage and archaeological aspects thereof, in accordance with current legislation relevant to Health, Safety, Environment and Quality ("HSEQ").

Under the WHS Act, we must ensure the health and safety of all workers, including Contractors (Subcontractors) whilst on our sites. A Contractor is a worker who carries out work for Ertech yet is not directly employed by Ertech.

Contractors have specific duties of care under the WHS Act when:

- Completing works as a PCBU on site;
- Supplying goods, material and substances;
- Using dangerous goods and hazardous materials; and
- Installing plant and equipment.

The WHS Act requires contractors to deliver services and products while ensuring they meet workplace work health and safety measures, taking into consideration the safety of their staff, other contractors, third parties and customers, at or near the workplace.

All Workers working on Ertech sites must, as a minimum, comply with the provisions of all:

a) Relevant WHS legislation including Codes of Practice and current Australian Standards;
b) Ertech's HSEQ management system, inclusive of HSEQ policies, procedures and standards that apply from time to time; and
c) any directions relating to HSEQ provided by Ertech.

For the purposes of HSEQ management, Labour Hire workers must fully comply with Ertech Safety and Health policy, Ertech HSEQ management systems and report any discrepancies of the above to their Ertech Supervisor.

Ertech has the right, at any time, to enter any Company site at which the Subcontractor is performing the works to review, inspect, audit or otherwise observe the safe systems of work, work practices and procedures in relation to the works are in place; and to check whether a Subcontractor is compliant with the projects HSEQ management systems.

Ertech strongly encourages Subcontractors to conduct and / or participate in regular workplace and task inspections and observations, reporting any hazards identified with any associated corrective actions; and provide timeframes by which actions will be rectified.

2.2 Documentation Guidelines

HSEQ documentation to be submitted to Ertech includes, although is not limited to:

- Safe Work Method Statement (SWMS);
- Plant Risk Assessment for individual powered mobile plant;
- Licences, certificates and competencies for all workers;
- Hazardous Chemicals Register and Material Safety Data Sheets;
- Electrical, Lifting Equipment, Calibration and Fire Extinguisher registers; and
- Safety Plan, Environmental Plan, Quality Plan and/or Inspection and Test Plans where required.

All subcontractor documentation must be reviewed and approved by Company management representatives prior to commencing work on Ertech projects. Subcontractor documentation may need to be amended to align with company and project specific HSE requirements utilising H-SYS-FOR-100-Subcontractor-Supplier HSE Pre-Mobilisation Checklist.

Should subcontract documentation not be supplied or does not meet the Ertech minimum standard, the Ertech Supervisor is responsible for ensuring the subcontractor adopts and is compliant with the Ertech management system.

3 Induction, Training and Competency

3.1 General Industry Induction

All Workers must provide evidence that they have completed and hold a current construction industry induction card prior to attending site.

3.2 Project-Specific Induction

All workers are required to complete the Ertech site-specific induction prior to commencing work on site in accordance with H-SYS-PRO-087-Manage HSE Communication and Consultation.

Once on site, a site-specific orientation, specific to the project work area will be provided. (e.g. emergency response, muster points, access/egress, storage, crib rooms, work location etc.).

3.3 Other Inductions and Requirements (E.G. Client Requirement)

Individual projects may require additional inductions and medicals to be successfully completed prior to attending site. Subcontractors are responsible to ensure all Workers comply with those requirements at all times.

3.4 Training and Evidence of Competency

Subcontractors are responsible to ensure its workers are trained and competent to perform the tasks by which they have been contracted; and provide evidence of such prior to commencing work via the Ertech Induction system.

All workers are required to provide evidence of attending relevant construction industry safety-related training prior to commencing work on any Ertech site. Where the subcontractor or labour hire Workers are required to perform high-risk tasks, the appropriate licence must be submitted to Ertech prior to conducting the work.

3.4.1 Plant Operator Competency and Assessment

All mobile plant operators (Ertech and sub-contractor) must possess and provide a copy of a formal, nationally recognised qualification (e.g. ticket, RII) relevant to the plant they are engaged to operate as evidence that they are competent to operate to the complexity required.

Prior to commencing work, the Supervisor must ensure that the operator has one of the following recorded on the project file:

- Statement of Attainment or Certificate issued by a Registered Training Organisation (RTO) for the successful completion of the appropriate unit of competency relevant to the plant to be operated, or
- Evidence of a formal VoC assessment against defined standards by an RTO for the plant to be operated.

At no time, shall a Worker be permitted to operate mobile plant without formal qualifications being on the project records

3.4.2 High-Risk Work Licences

Workers shall provide evidence of attending construction industry safety-related training course before starting work. Activities identified requiring high-risk work licences are only to be conducted by personnel holding a licence and all high-risk work must be appropriately Supervised.

4 Risk Management

4.1 Risk Management

The Subcontractor must submit SWMSs for all high-risk activities and for any activity deemed by Ertech to require a SWMS. relevant to the works on site. The Ertech project staff will review and accept the SWMS utilising H-SYS-FOR-087-SWMS Checklist as a guide.

Where the Subcontractor intends to use other subcontractors to undertake specialist work, the Subcontractor is responsible to review and submit their task-specific SWMS prior to submission and acceptance by Ertech.

Labour hire Workers must complete works under any SWMS being used on site to control work tasks. Labour hire Workers may work under Ertech SWMS or approved subcontractor SWMS dependant on the labour provided.

4.2 Hazard Identification, Risk Assessment and Control (HIRAC)

All Workers must proactively participate the hazard identification and risk assessment process in accordance with H-SYS-PRO-084-Manage HSE Operational Risks. Ertech's minimum requirements include:

Item	Description
Project Risk Register	Relevant sections of the overall PRR is to be provided during the onboarding/procedure phase, with input required from the Subcontractor The Subcontractor shall be invited to periodically review and update relevant sections, where applicable to their works
Safe Work Method Statement (SWMS)	Specialise Subcontractors must submit a SWMS for review and acceptancy by Ertech prior to works commence Subcontractors are invited to participate in SWMS develop and reviews relevant to them throughout the project lifecycle
Personal Risk Assessment (PRA)	Prior to each shift, all Workers (Ertech and supply chain) must complete a PRA to identify hazards, risks and controls specific to tasks they are to conduct during that shift
HSEC Card (Hazard Identification)	Where a hazard is identified, all Workers are to document and submit the HSEC Card to their supervisor. Where the hazard has the potential to harm an individual/s or cause damage, they are to immediately cease works, notify their supervisor and compete a HSEC Card.
Inspections	Where a Worker attends an inspection and identifies a hazard, it is to be documented and reported, with all corrective actions registered and once attended, verified as closed.

4.3 At-Risk Behaviour

Ertech shall address any 'at-risk' worker behaviour observed and provide notice to the Subcontractor or Labour Hire company. A serious breach of health, safety, environmental or quality requirements, or repeated warnings for the same offence, shall lead to the Subcontractor's or Labour Hire worker's removal from the site in accordance with the terms of their contract agreement.

4.4 Safety in Design

Where the Subcontractor is responsible for design, a risk assessment must be provided to Ertech prior to the commencement of works, describing how current legislative requirements for safety in design are satisfied in accordance with H-PRJ-PRO-100-Manage Design.

5 Consultation and Communication

Subcontractors are required to participate in Ertech's communication and consultation programs.

Ertech conducts various consultation and communication programs, including though not limited to toolbox talks and prestart meetings.

6 Health Surveillance, Monitoring and Exposure Management

Subcontractors and Suppliers are responsible for identifying situations within their workplace where health surveillance and monitoring is required and implementing methods for the identification, assessment and surveillance of workers where exposure to hazardous chemicals or substances poses a risk to health.

The Subcontractor / Supplier must notify Ertech where hazardous chemicals or substances are used in the course of their works and provide evidence of health surveillance and monitoring programs.

7 Fitness for Work

All workers must present themselves to work in a fit and healthy manner on site.

7.1 Alcohol, Drugs and Other Substances

Alcohol and non-prescribed drug use are not permitted on any Ertech site. The Project Manager or delegate reserves the right to expel from the workplace any worker who is under the influence of alcohol or other drugs. Subcontractors and Labour Hire Workers may be required from time to time to submit to random alcohol and/or other drug testing as arranged by either us or the Client Representative.

All Subcontractors' or Labour Hire workers must comply with the requirements of H-SYS-POL-015-Drug and Alcohol Policy and H-SYS-PRO-106-Manage Drug and Alcohol Testing.

7.2 Fatigue Management

Fatigue Management is a key component of workforce planning. When planning works, the Project Manager and Supervisors must consider factors including travel to and from work, time working on site (including break times and the working week), the type of work required to be performed and shift duration. The Supervisor is responsible for monitoring and reporting hours worked and fatigue, with time accumulated to be reported to the Project Manager via daily timesheet.

The maximum number of working hours allowable in one 24-hour period must not exceed 14 hours, including travel to and from work / place of hire.

7.3 Heat Stress

Heat-related illness is most commonly the result of working in hot and/or humid environments. Where heat is a risk, subcontractors must ensure preventive measures are implemented to prevent workers from adverse effects associated with heat stress or heat stroke.

7.4 Sick Workers

To manage risks presented by sick workers (RSV, Influenza, COVID-19), all persons, workers, suppliers and subcontractors working on or visiting an Ertech work site are required to follow directions as per state health COVID-19 Safe requirements.

Ertech requires that any worker that displays any symptoms of acute respiratory infections, such as RSV, Influenza, the Flu or Covid-19, are to stay away from the workplace.

These symptoms include:

- Respiratory (coughing or difficulty breathing),
- Sore throat
- Runny nose or nasal congestion
- Fever and/or headache

- Nausea, vomiting or diarrhoea.

7.5 Smoking/Vaping

Smoking or vaping in company vehicle's, plant and buildings including sheds and toilets is prohibited. Smoking legislation states' smoking is not to occur within 4 metres of any entrance to an enclosed space. Appropriately identified bins for butts must be used. Smoking or Vaping is not to occur at prestart meetings. Smoking is not to occur outside of the designated smoking area.

Workers found to be in breach of the smoking policy shall be performance managed in accordance with H-HRM-PRO-095-Workplace Behaviour Management.

8 Safety: Operational Management

8.1 Housekeeping

The available work area within each site is limited and it is essential that good housekeeping be maintained throughout the period of the contract. All Workers must ensure that the work areas are kept tidy at all times, access ways kept clear, and surplus/scrap materials removed daily. All waste materials shall be placed in provided skip bins and removed from site as soon as is practical.

Subcontractors are responsible to remove all their waste from our project sites and dispose of them in accordance with SDS and legal requirements.

8.2 Personal Protective Equipment (PPE)

The Subcontractor and/or Labour Hire company must provide its workers with adequate PPE for the works. All issued PPE must meet the relevant Australian Standard and be worn correctly. The following PPE requirements for work on site are:

- Safety footwear (AS2210)
- Safety helmet (AS1800 and AS1801)
- Safety glasses (AS1336, AS1337 and AS1338)
- High visibility clothing (AS4602) and materials (AS1906.4)
- Long-sleeved shirts – no shorts sleeves are to be worn on any of our sites.
- Long trousers – no shorts are to be worn on any of our sites.
- Hearing protection (AS1269.3 and AS1270) must be provided for and worn by workers working in or entering into designated excessive noise exposure areas.
- Safety goggles or full-face shields must be worn as identified by the risk assessment for the activity undertaken. As a minimum double eye protection safety glasses and face shielded must be worn for the following tasks:
  - Use of quick cut concrete saws.
  - Use of chain saws.
  - Use of grinders.
- Protective gloves (AS2161) that meet the EN388 Cut 5 standard, excluding specialty gloves e.g. chemical or welding gloves, must be provided, carried on person and worn by workers undertaking any activity that may cause cuts and lacerations to a worker's hands.

8.3 Protection of the Public

Subcontractors must provide and maintain all fences, guards, hoardings, warning notices, lighting and other things whatsoever, as required by law or where directed by the Project Manager are installed and maintained to ensure public safety and well-being is not at risk of harm.

Do not commence work if persons in the vicinity of the site, but not on the site, could be injured, unless:

- Adequate hoarding or barricades have been put in place to reduce the risk
- A gantry is erected to prevent injury from falling objects

- The design, erection, use and maintenance of a hoarding, barricade or gantry is adequate for the loads placed on it

A hoarding, barricade or gantry must not be removed or altered without permission from Principal Contractor. Hoarding or barricades must not be installed without a licence and its installation must comply with local government requirements.

Where Labour Hire is concerned Ertech shall provide or supervise the above and it is the responsibility of the Labour Hire Workers to report any discrepancies of the above to the Ertech Supervisor.

8.4 Safety Signage

Subcontractors must ensure that adequate hazard warning signs are displayed for hazards at the workplace that may not be readily apparent. The signs must comply with AS 1319 Safety signs for the occupational environment.

8.5 Permits to Work

As an absolute minimum, all workers must comply with H-SYS-PRO-091-Manage Permits and Tagging procedure, or as otherwise required by the Client.

The following permits must be obtained prior to relevant works commence via the Ertech Permit Authoriser (PA), including:

- H-SYS-FOR-091-Confined Space Entry Permit
- H-SYS-FOR-092-Hot Works Permit
- H-SYS-FOR-093-Isolation Permit
- H-SYS-FOR-097-Excavation Permit
- H-SYS-FOR-098-Work at Heights Permit
- H-SYS-FOR-099-Working near Overhead Electrical Networks Permit

8.6 Work at Heights

Every effort must be made to eliminate the need for workers to work at heights - commencing with the safety in design process.

Where elimination is not practicable, workers at heights must be protected by carrying out work on a level surface with secure, compliant, fixed edge protection in accordance with relevant Australian Standards (AS) such as:

- AS1657 Fixed platforms, walkways, stairways and ladders - Design, construction and installation;
- AS/NZS1576 Scaffolding – General Requirements; AS/NZS 4576 – Guidelines for Scaffolding; and
- AS2550.7 Cranes - Safe use - Builders Hoists and associated equipment

Where Elevated Work Platforms are used, comply with AS/NZS 1418.10: Cranes, hoists and winches - Mobile elevating work platforms

Where fall arrest or restraint equipment is used, its identification (including tagging), safe use, inspection, maintenance, storage, training, recovery competency and supervision requirements must be in accordance with relevant parts of AS/NZS 1891. All anchor points to be used in work at heights are to be clearly identified and certified by a qualified and competent engineer. This shall include the use of tagging defining the Safe Working Load (SWL) of each anchor point.

Where it is not reasonably practicable to eliminate the necessity to work from a step ladder (based on a documented risk assessment), platform ladders are acceptable. Extension or single ladders can only be used only as a means of access to or egress from a work area and not as a working platform. Ladder use must be in accordance with current legislation and relevant parts of standard AS/NZS 1892.

Labour Hire Workers employed by Ertech to work at heights must follow the instruction given to them from Ertech on any of the above requirements.

8.7 Demolition Work

Demolition work must not commence without approval of the local government authority and our Project Manager or delegate. Any demolition work must comply with the requirements of current legislation and AS 2601 Demolition of structures.

Labour Hire Workers employed by Ertech to work Demolition tasks must follow the instruction given to them from Ertech on any of the above requirements.

8.8 Dust

To prevent dust-related safety and environmental hazards, dust levels shall be effectively planned for and visually monitored during construction works.

Controls shall be considered as part of the planning process and included in the relevant SWMS. Controls include, though are not limited to:

- Covering all loads to/from site;
- Wetting down of materials (e.g. stockpiles, soils and uncompacted materials);
- Consideration as to methodology and treatments used to prevent dust being generated, where reasonably practicable.

8.9 Asbestos

If asbestos is to be removed from the workplace, our Project Manager or delegate must be notified before the work commences. Management of Asbestos Containing Material must be in accordance with current legislation and the requirements of National Code of Practice for the Safe Removal of Asbestos and Code of Practice for the Management and Control of Asbestos in Workplaces.

Labour Hire Workers employed by Ertech to work with Asbestos Containing Material must follow the instruction given to them from Ertech on any of the above requirements.

8.10 Crystalline Silica Substances (CSS)

Crystalline Silica is commonly found in sand, stone, concrete, and mortar. These materials can contain at least 1% Crystalline Silica and are called Crystalline Silica Substances (CSS). When these are cut, crushed, drilled, polished, sawn or ground silica dust particles are generated, and this is called **Respirable Crystalline Silica (RCS)**. These dust particles are small enough to lodge in the lungs and cause illness or disease including **silicosis** of the lung.

A CSS Management Plan has been developed to address the risked associated with CSS on Ertech TfNSW projects. A SWMS for Crystalline Silica Substances (CSS)/Respirable Crystalline Silica that covers the hazard and controls is to be implemented when Ertech is performing activities where there is risk of exposure to CSS/RCS.

Ertech sub-contractors engaged by on project to conduct activities that produce RCS must develop, submit, and have approved a SWMS detailing their CSS/RCS hazards and controls including mask fit test requirements prior to commencing works.

8.11 Confined Space

Any entry to or work within a confined space, must be performed in accordance with current legislation and requirements of AS 2865 –Confined Spaces.

8.12 Excavation and Trenching

Subcontractors must comply with Ertech H-SYS-PRT-018-Excavation and Trenching protocol and relevant Code of Practice. An Excavation Permit is required for all excavation and trenching works, issued by an Ertech representative.

8.13 Explosives

No explosives or detonating devices are permitted on the site without the written permission of the Project Manager. Any use of Explosives must comply with AS 2187 Explosives - Storage, transport and use.

Labour Hire Workers employed by Ertech to work on sites where explosives are used must follow the instruction given to them from Ertech on any of the above requirements.

8.14 Electrical

8.14.1 Electrical Work

Only equipment that complies with the equivalent of the Australian Electrical Standards AS/NZS3000 and AS/NZS3012 is to be allowed on our sites. The Subcontractor is to comply with the following requirements:

- All isolation points are to be clearly identified.
- Isolation tags along with both master and individual locks must be provided and used for all electrical isolations.
- Approved earth leakage protection shall be provided for all circuits.
- All temporary distribution boards shall have appropriate signage and be fixed to the ground, lockable (for isolation purposes) and weatherproof.
- All mains boards must include a system circuit map.
- No electrical equipment is to be used or be in place ready for use without a current test and tag.
- Testing and tagging shall only be conducted by approved and qualified Workers.
- All temporary electrical leads shall be secured off the ground by insulated hooks and/or lead stands.

Labour Hire Workers working on site that identify any discrepancies of the above must report them to the Ertech site Supervisor.

8.14.2 Working with Live Services

All services must be accurately located using the BYD relevant services drawings and the location verified by secondary means such as (but not limited to) Electronic detection of horizontal and vertical location; Ground penetrating radar or Non-destructive pot-holing. The relevant Excavation Permit or Concrete Cutting / Drilling Permit must be completed and authorised by the Project Manager or delegate prior to works.

Labour Hire Workers employed by Ertech to work near live existing servicers must follow the instruction given to them from Ertech on any of the above requirements.

8.15 Hazardous Substances and Dangerous Goods

A copy of a legible and current (last 5 years) Safety Data Sheet (SDS) must be provided for all hazardous substances or dangerous goods to be used on site.

All hazardous substances and dangerous goods must be detailed on a register and a risk assessment provided prior to using the hazardous substances or dangerous goods at site. Subcontractors must ensure that documented evidence of employees trained in the safe use of hazardous substances and dangerous goods is provided. Hazardous substances and/or dangerous goods must be stored in accordance with the storage requirements of the products' SDS. Unused or spent hazardous substances or dangerous goods are to be disposed of in accordance with the recommendations of the SDS.

The Subcontractor must ensure monitoring of all task/activities involving hazardous substances and dangerous goods and that safe work practices are documented and maintained.

Labour Hire Workers employed by Ertech to work with Hazardous or Dangerous Goods must follow the instruction given to them from Ertech on any of the above requirements.

8.15.1 Gas Cylinders

All gas cylinders must be handled and secured during use and temporary storage to prevent control valves from being damaged or broken off. Oxygen and acetylene cylinders in use or being lifted should always be supported in cradles. Cylinder valves are to be shut off during periods of non-use and pressure bled from hoses. Hoses are to be fitted with flash back arrestors at both ends. Gas cylinders must not be located where they may block stairs, exits, ladders or walkways.

8.16 Tilt-Up / Pre-Cast Concrete

Requirements for the design, supply, transport, erection and record-keeping of manufactured tilt-up concrete panels must be in accordance with current legislation and AS3850 Tilt-up concrete construction.

Labour Hire Workers employed by Ertech to work in a Tilt-Up Concrete Construction environments must follow the instruction given to them from Ertech on any of the above requirements.

8.17 Traffic

Traffic Management Plan (consistent with AS1742.3) must be developed by a competent traffic engineer for all projects involving interaction with live vehicular traffic. Traffic Management Plans shall identify the controls necessary to separate site Workers from traffic such as physical barriers and minimum separation distances. Negotiations with relevant authorities including the client, local traffic authorities and police, must be undertaken on road projects to reduce speed limits to as low as reasonably practicable.

Labour Hire Workers employed by Ertech to work near Live Vehicular Traffic must follow the instruction given to them from Ertech on any of the above requirements.

8.18 Mobile Plant

All mobile plant and personnel interface shall follow the Ertech Three Commandments of Separate, Signal and System. The Ertech Three Commandments are a structured and planned method for control of plant and personnel interactions which were established to reduce the risk of mobile plant and personnel interface interactions.

The Subcontractor or Labour Hire Workers must comply with the following requirements:

- Plant operators must be verified as competent prior to operation of any mobile plant.
- Mobile Plant shall only be operated in accordance with manufacturer's instructions and engineering design parameters;
- Audible warning devices activate when plant is reversing
- Amber flashing lights activate during operation
- Pre-start inspections conducted every morning prior to use;
- Faulty equipment must not be used. Faults must be reported, recorded and rectified.
- Mobile Plant and equipment supplied is compliant with legislation and be serviced and maintained in accordance with manufacturer recommendations.
- Have a dry powder type fire extinguisher, amber flashing light, and two-way radio;
- Mobile Plant is to be left in a safe condition when not in use.
- At the end of a work shift, mobile plant is to be made safe, parked and locked in a safe location.

For light vehicles going onto a construction site, the light vehicle is to be licenced, roadworthy and have fitted or available a powder type fire extinguisher, amber flashing light, two-way radio and a first aid kit.

8.19 Light Vehicles

Only approved light vehicles, fitted with minimum site equipment (e.g. rotating light, UHF and other protection relevant to the project) are authorised on site.

- All drivers must obey road and site rules; and manufacturer instructions;
- Seatbelts must be worn at all times;
- Smoking is prohibited in any Ertech owned and/or operated vehicle;

- Mobile phones may only be used in conjunction with a fitted hands-free device;
- Vehicles are to remain clean and free of debris at all times; and
- Vehicles must be parked in allocated/designated areas and where practicable, reverse parked.

8.20 Hand Tools, Small Plant and Equipment

8.20.1 Chainsaws and Quickcut Saws

Only workers who have attended formal training and assessed as competent in the safe use of a chainsaws and quick cut saws are to operate these saws. Training should be verified on site during the induction process and a copy of the Statement of Attainment from a Registered Training Organisations held in the site induction records. Saws are to be transported, stored, used and inspected and tested in accordance with manufacturer's requirements. A SWMS must be prepared prior to using chainsaws and quick cut saws.

8.20.2 Power Tools

There are many types of portable hand-held nail guns used in construction. They are powered by either:

- Electromagnetism
- compressed air—pneumatic
- highly flammable gases—such as butane or propane
- powder actuated—requiring an explosive charge. Bump-fire nail guns (including those fitted with switchable levers that allow the gun to be used in another mode) must not be used:
- where the user is required to climb ladders or other elevated areas with a loaded gun in restricted and tight spaced areas where the gun's actuation muzzle is at high risk of being bumped, where other people are likely to come within the firing path of the nail gun or there is a foreseeable risk of them being struck by a flying nail (e.g. by ricochet or deflection).

Nail guns should be maintained to ensure correct operation of the actuation mechanism by an authorised agent or be replaced where they are damaged.

Safety measures that are to be implemented when using a nail gun include:

- ensuring workers have appropriate training in their use;
- they are used in accordance with the manufacturer's instructions;
- establishing and maintain an appropriate exclusion zone around the nailing operation;
- placing signage to alert people that a nailing tool is in use;
- re-assigning workers not directly involved in the nailing work away from the area where the nailing operation is taking place (where possible);

ensuring users and other workers (located in or near that exclusion zone) wear appropriate eye and hearing protection and any additional PPE as specified within the user's manual and comply with all worksite rules.

8.20.3 Ladders

Use of ladders should be avoided where practicable. Single or extension ladders **must not** be used unless:

- the worker using the ladder can maintain at least 3 limbs holding, wrapped around or standing on the ladder in any combination;
- the worker is prevented from falling by a control measure e.g. a strap commonly known as a pole strap;
- or the person is using a fall arrest harness system that is not attached to the ladder and the ladder is secured at or near the top to prevent it moving e.g. tying the top of the ladder to a plate fixed to the top of a fixed frame, clamping the top of the ladder to structural steel at or near the bottom to prevent it moving e.g. tying the bottom of the ladder to pegs in the ground, a person, other than the person using the ladder, holding the ladder.

Ladders, other than a trestle ladder, used for the work must:

- have a load rating sign attached to it of at least 120kg (or more depending on user); and
- be manufactured for industrial use; and
- be used only for the purpose for which it is designed; and
- not be used to support a weight greater than that for which it is designed; and
- be no longer than for a single ladder - 6.1m; or for an extension ladder used to do electrical work - 9.2m; or for another extension ladder - 7.5m.

8.21 Hot Works

Hot work is considered any work that may introduce a source of ignition into a work area (e.g. electrical welding, gas cutting, angle grinding and all other types of naked flame and heated objects). Spark producing equipment, plant, vehicles and electrical equipment may be sources of ignition in flammable atmospheres.

Hot works may be conducted only where absolutely necessary; and where equipment used or worked on cannot be removed to a less hazardous area. A hot works permit is required for all hot work activities.

8.22 Welding

To ensure the health and safety of persons, engaged in welding, brazing soldering, flame of arc cutting or gouging or metal spraying processes, all Workers must perform such work or processes in a manner consistent with current legislation and AS1338 Filters for Eye Protectors and AS1674.1 – Safety in Welding and Allied Processes.

8.23 Explosive Powered Tools

Only persons holding the prescribed certificate of competency must use explosive powered tools.

Explosive power tools must be used in accordance with AS/NZS 1873 Powder-Actuated hand-held fastening tools. All explosive charges must be kept in a locked metal box. Hazard warning signs (AS1319) must be displayed. Always select power tools that are the most suitable for the job giving consideration to weight, vibration and kickback. If equipment is hired, check correct type and weight ordered is received. Do not remove fitted guards or handles from the equipment; it is fitted to prevent injuries.

8.24 Lasers

Laser sources may only be used by operators who are in possession of proof of appropriate qualifications. Laser operators shall ensure that appropriate hazard warning signage is erected to protect persons from eye injury. Ensure lasers or laser products are not operated at a workplace unless classified and labelled in accordance with AS/NZS IEC 60825: Safety of laser products. Use of laser products must also comply with AS 2397 Safe use of lasers in the building and construction industry.

8.25 Drones

Sub-contractors using Drones (or Remotely Piloted Aircraft-RPA) to perform works for Ertech must comply to Civil Aviation Safety Authority (CASA) Law and any specific state, territory or local bylaws restrictions, unless formal approval been granted. Copy of Remote Pilot License (RePL) for the pilot and Remote Operator Certificate (ReOC) for the business or employer must be provided to Ertech prior performing the works.

8.26 Manual Handling

Manual Handling tasks shall be managed in accordance with the legislative requirements and Codes of Practice for Manual Handling. Prior to any manual-handling task, a risk assessment shall be conducted, using the Personal Risk Assessment (PRA) to determine:

- Does the load need to be moved?
- Can it be handled by one person or is help required?
- Can mechanical lifting aids be used?
- Is the route and destination clear?

Wherever possible mechanical lifting aids shall be the first option chosen to move any load.

Risks to health and safety relating to a musculoskeletal disorder associated with a hazardous manual task must be managed taking the following:

- postures, movements, forces and vibration relating to the hazardous manual task;
- the duration and frequency of the hazardous manual task;
- workplace environmental conditions that may affect the hazardous manual task or the worker performing it;
- the design of the work area;
- the layout of the workplace;
- the systems of work used; and
- the nature, size, weight or number of persons, animals or things involved in carrying out the hazardous manual task.

The hierarchy of controls is to apply to tasks requiring manual handling e.g. where practicable the use of manual force should be eliminated by using mechanical aides such as a Hiab-crane or other mechanical lifting device. Where lifting is to be performed by personnel safe lifting techniques included in site inductions are to be conducted.

8.27 Heavy Lifting

Classified plant shall comply with the requirements of relevant Health and Safety Regulations, Australian Standards AS2550 (all parts) and AS1418 (all parts). Classified plant that requires registration must not be used on site unless the current certificate of registration is available for evidence.

Workers and subcontractors involved in mechanical heavy lifting shall complete a lift permits and calculations as required in accordance with H-SYS-PRT-055-Mechanical Lifting Operations.

Plant designed to lift equipment or materials shall require:

- A lift plan is to be developed in accordance with relevant legislation, codes of practice and Australian standards.
- A competent person must complete the lift risk assessment, determine the safe method to lift, nominate the required equipment and approve the lift plan.
- Rigging and/or Lifting equipment e.g., slings, chains, spreader bars and the like are to be inspected, tagged and certified for use by a competent person prior to use.
- Prior to any heavy lift, a competent person must check that all safety devices are operational, inspect all lifting equipment and ensure that the load is safely rigged and secure. Detailed crane lift sequences are to be documented, and crane crews (including riggers) must be briefed prior to commencing the lift.
- Rated capacity limiter must be fitted to all mobile cranes and in working order determined by a competent person as witnessed by our representative.
- Ground condition assessment is to be completed prior to lifting activities.
- Cranes must only travel and be set up on approved suitable ground - to ensure support of crane outriggers.
- All outriggers are to be packed/supported as per manufacturers' and/ or engineer's recommendations and be protected from traffic/disturbance by physical barriers.

Labour Hire Workers employed by Ertech to work in a Heavy Lifting environment must follow the instruction given to them from Ertech on any of the above requirements.

8.28 Noise

Industrial noise levels must comply with current legislative requirements and AS 2436 – Guide to Noise Control on Construction, Maintenance and Demolition Sites. Noise must not adversely affect any other worker or the public.

8.28.1 Vibration

Areas and activities with a potential or actual likelihood of involving harmful levels of vibration shall be identified and appropriate measures implemented to reduce the risk to as low as reasonably practicable.

8.29 Isolation, Testing and Tagging

8.29.1 Test and Tag

Testing and tagging of equipment shall be conducted according to Australian Standards. All tested and tagged equipment shall be placed on the Ertech site register to track testing and tagging compliance.

The following items shall be tested and tagged according to the below Australian Standards.

Fire extinguishers	AS 1841, AS 1850
Soft slings	AS 4497
Lifting devices	AS 4991
Chain slings	AS 3775
Electrical equipment	AS 3760

8.29.2 Personal Danger Tag

The Personal Danger Tag is typically back, red and white, marked ‘DANGER: DO NOT START.’ The process for using this tag includes:

- Note name, time, date and area on back of tag;
- Attach personal danger tag to the main isolation point (e.g. switch);
- Only the person who has signed the tag may attach and remove it;
- Anyone who has removed or destroyed another worker personal danger tag must immediately replace it with their own and notify the worker and Supervisor;
- No-one is to operate any part of the machine where the tag is fitted;
- Should the tag not be removed at end of shift due to ongoing maintenance, it is to be replaced with ‘Out of Service Tag’ until the worker returns to continue working; and
- Upon completion of works, paper tags are removed and destroyed.

Note: Any worker who has failed to remove the tag at end of shift, shall immediately notify the Supervisor and at their own expense and on their own time, return to site to remove the tag and replace it with an ‘Out of Service’ tag.

8.29.3 Out of Service Tag

Project Out of Service tags shall be used as follows:

- Note name, time, date and reason for the machine being out of service on tag;
- Attach tag to the main isolation switch;
- The worker performing the repairs or Supervisor is authorised to remove the tag only when they are fully satisfied repairs have been completed;
- Upon completion of the task, destroy paper tags; and
- Out of Service tags must not be used when working on the machine.

8.29.4 Electrical Tagging Colours

	Red	Dec-Feb
	Green	Mar-May
	Blue	Jun-Aug
	Yellow	Sep-Nov
	Black	Yearly
	Burgundy	5 Yearly

8.29.5 Soft Sling Lifting Gear and Work at Heights Equipment

	Red	Jan-Mar
	Green	Apr-Jun
	Blue	Jul-Sep
	Yellow	Oct-Dec

8.29.6 Chain Slings

Chain slings require non-destructive testing to be complete annually, when manufactured, when damaged or when missing tags. Slings are to be placed on a registered and monitored by the contractor

8.30 Equipment Calibration

Subcontractors must identify all equipment required to be calibrated including any equipment belonging to their subcontractors. Current calibration certificates for equipment such as Water, Sewer, Gas gauges, penetrometers, multi-meters etc. are to be maintained and made available to us on request.

9 Environmental Protection

All workers must undertake works in an environmentally responsible manner and in accordance with current legislation to prevent pollution. This includes, but is not limited to, the following:

- minimise dust generation and prevent dust leaving the site with potential to impact on surrounding community and the environment;
- no littering at site. Workers must use the litter (or designated recycling) bins provided on site;
- do not cause water pollution (other than to a sewer), except in accordance with the conditions of any Environmental Protection license;
- do not, without lawful authority injure, destroy or interfere with any flora or fauna; and
- turn-off all electrical appliances and water supplies when not in use.

Refer to H-SYS-GDL-014-Guide to Environmental Management for further information.

9.1 Communication and Participation

Ertech's Environmental Policy is communicated to Subcontractors and Suppliers through their contract and on site at induction. Subcontractors and Suppliers are responsible for the installation, maintenance and monitoring of environmental controls specific to their works; and shall participate in environmental communication forums and monitoring activities, including, though not limited to:

- Project-specific induction.
- Scheduled HSE meetings and communications (e.g. prestart meetings, toolbox talks etc.);
- HSE Inspections, Observations and audits.
- Incident investigations, where required; and

In addition, Subcontractors must proactively participate in project-specific environmental training and awareness where relevant (e.g. erosion and sediment control, weed and pest inspections).

Suppliers and Subcontractors must view site notice boards for site information and updates and participate in relevant Environmental communication forums, such as:

- Managers' meetings that are to address HSE matters
- Toolbox talks
- Pre-start meetings
- HSE committees

9.2 Environmental Objectives and Targets

Subcontractors and Suppliers are expected to support and achieve the following Ertech environmental objectives and targets whilst working on the project:

Objective	Key Performance Indicator (Target)	Performance Measure
Minimise environmental Impact	Where the Project has influence, adopt a lifecycle perspective during procurement of raw materials, production, transportation, use, maintenance, recycling and disposal.	Nil environmental incidents Nil complaints
Minimise air quality impact	Compliance with EA/Development permit conditions	Nil dust complaints
Minimise noise nuisance	Compliance with EA/Development permit conditions	Nil noise complaints
Reduce waste	Minimise volume of material to landfill Appropriate disposal of regulated waste	Waste generated per tonne aggregate produced
Minimise impact to ground and surface water	Capture and store stormwater run-off on site for re-use	Nil water quality issues Implement effective erosion and sediment controls
Ensure compliance to regulatory requirements	Compliance with EA and Regulatory requirements	Zero regulatory non-conformances Internal Audit score of greater than 85% no non-conformances with legal requirements.
Prevent introduction and spread of weeds and pests	Complete inspections of vehicles, plant and equipment as per EMP	All plant and vehicles with complete weed mobilisation inspections. Monitor pest fauna where identified Eradicate identified / declared weeds on site
Prevent the release of hazardous substances	Compliance with EA and Regulatory requirements	No hazardous waste spillage or leaks Nil contamination of water quality or soil due to hazardous materials

9.3 Cultural Heritage

Subcontractors and Suppliers are to maximise retention of natural, historical and cultural resources at each location and minimise impacts to Aboriginal and historic heritage during construction and when performing works. Land disturbance shall be controlled and recorded to minimise the project's environmental footprint.

If an item (or suspected item) of indigenous or non-indigenous heritage is found, construction shall cease around the affected area, and the Project Engineer or Supervisor shall be notified immediately to make arrangement for the site to be assessed. In the interim, and until instructed otherwise, the site shall be fenced off and treated as an exclusion zone.

If suspected human remains are found onsite, works shall cease immediately in the area. The Project Engineer or supervisor shall be notified immediately to inform the relevant authority, and the site shall be fenced off and treated as an exclusion zone.

9.4 Environmental Complaints and Enquiries

Supplier and / or Subcontractors shall participate and contribute to relevant environmental complaint and enquiries with the intent of aiding the resolution and correction of the closure of the complaint or resolution of the enquiries.

Environmental monitoring programs shall be adjusted to address matters raised through valid complaints. Amendments to the monitoring program shall be adequate to allow early identification of conditions that are likely to result in further complaints. Data shall be analysed to identify actual and potential impacts to the community and corrective actions identified and implemented.

10 Quality Management

10.1 Quality Policy and Quality Management Plan

Subcontractors and Suppliers must comply with Ertech and its Clients' Quality Control and Assurance requirements, including quality policy and quality management plan.

Where required under the contract, Subcontractors and Suppliers must provide Ertech with their Quality Policy and prepare a Subcontractor or Supplier Quality Management Plan that is tailored to deliver the subcontracted scope of works and / or supply the materials or products to be included in the works.

10.2 Quality Inspection and Testing

Subcontractors and Suppliers must comply with Ertech and its Clients' Quality Control and Assurance requirements, including inspections (product, hold and witness points).

Where specialist works and materials are provided, Inspection and Test Plans (ITP) may be required to be submitted in accordance with relevant work specifications.

Where hold and witness points apply, the Subcontractor / Supplier must provide at least 48 hours' notice to inspect.

Testing must be undertaken by a NATA testing agency certified to perform the nominated test.

Refer to H-SYS-PRO-076-Quality Inspection and Testing.

10.3 Identification and Traceability

Subcontractors and Suppliers, when required, must provide product, material and / or service information identifiable and traceable to the manufacturer's material source (such as steel heat traceability for wharf pylons and dolphins) or to the organisation's / individual qualifications or certifications (such as NATA certification for conducting test and inspection or individual NDT qualification).

Identification and Traceability records evidencing compliance to applicable industry standards, project specifications and requirements shall be provided to the project engineer throughout the project life cycle.

10.4 Product Inspections (Manufacture / Site)

Inspections may be conducted during manufacture (e.g. pile cages, steel fabricated products, pre-cast elements etc.) to verify production, materials, handling and delivery is conducted in accordance with the relevant specification and/or standard.

Additionally, identified project critical and high-value products assembled in the supplier's / subcontractor's facility will require Factory Acceptance Inspection and Testing (FAT) and agreement from the Ertech project engineer prior to shipment to site. The Factory Inspection and Testing records shall provide evidence of how the product will meet applicable industry standards, project specifications and requirements. In some cases, Factory Inspection and Testing will be required to be witnessed by Ertech nominated and / or client representatives.

Ertech shall carry out an Inwards Goods Inspection Check to inspect all incoming materials and products to ensure shipments are conforming to procurement specifications and requirements in case there has been damage sustained because of manufacture, transport, loading or unloading and to ensure that the correct quantity is provided. Where non-compliance is found, the shipment may be rejected and put into quarantine. The supplier/manufacturer is responsible to investigate and replace the non-conforming or undersupplied products and materials at their own expense.

Refer to H-SYS-FOR-026-Inwards Goods Inspection Checklist

10.5 Calibration

Where equipment is required to be calibrated, the Subcontractor must ensure a calibration register and current certificate is maintained and made available to Ertech upon request.

Refer to H-SYS-GDL-010-Guide to Controlling IMT Equipment.

10.6 Non-Conformances

Where a non-conformance (NCR) is identified, works must immediately cease until corrective action is agreed and approved by Ertech and its Client. Non-conforming work must not be covered over until the works have been verified and the NCR closed.

Subcontractors are responsible for immediately notifying the Ertech Supervisor and / or Ertech Project Engineer following identification of the nonconformance and submit written notification no later than 24 hours following notification.

The Ertech Project Engineer is responsible to review the NCR and in consultation with the Client Representative; request for a root cause analysis to be the basis of the implementation of the corrective and preventive actions; and ensure the agreed corrective actions are verified and accepted.

Refer to H-SYS-FOR-043-Nonconformance Report,

10.7 Audit

Ertech representatives may conduct on site or off-site audits throughout the project lifecycle, including that of Subcontractors and Suppliers, where required. The results of the audits shall be used as a basis to determine the amount of inspection, surveillance and further audit needed on the work or facilities of the Subcontractors and Suppliers.

Audit reports shall be reviewed and accepted by the Project Manager, with any findings, including Nonconformances, Corrective Actions and Opportunities for Improvement logged and managed to satisfactory completion. Suppliers and Subcontractors are expected to support and cooperate with the Ertech representatives and provide evidence and records that enables closure of the open findings and corrective actions.

10.8 Manufacturer's Data Report / Completion Schedule

Ertech representatives shall develop a Manufacturer's Data Report (MDR) / Completion Schedule that summarises all Client deliverables as specified in the Contract. Suppliers and / or Subcontractors are responsible for providing documentation and records relevant to their scope of work. Key requirements in achieving the MDR objective is continuous and open communication with the project team, enabling effective facilitation of requirements, delivery schedule, expectations, and the resolution of issues that hinder completion of the MDR.

10.9 Defect Management

Where each package of works is nearing completion or is substantially complete and as agreed with the Project Manager, the Project Engineer is responsible for coordination of defect inspections. Supplier's and / or Subcontractor's representatives are required to be present during inspection to facilitate immediate rectification of the defects including any defects raised by the client. In some cases, a punch list is created.

Photographs showing the condition of the defect, before and after remedial action are recommended to document the close out all items, as well as to prevent future recurrence or maintenance.

10.10 As-Constructed Information and Format Requirements

To ensure the timely handover of all as-constructed information at Practical Completion or where reasonably practicable, the project shall progressively create, implement, verify, close and compile as-constructed information as works progress. Subcontractors are required to provide updated documentation and communicate all changes, variations and provide relevant Technical Queries (TQs) that are needed to update the drawings to "As-Built" drawing together with any other relevant supporting information.

11 Emergency Preparedness and Response

11.1 First Aid

Subcontractors must provide all necessary first aid equipment and trained Workers as required under current legislation and in accordance with the contract.

11.2 Fire Prevention

If deemed necessary by the Project Manager, suitable fire extinguishers must be provided by the Subcontractor. Employees must be competent in the use of such extinguishers.

11.3 Incident Reporting and Investigation

All Workers must report all potential incidents, actual personal injury, disease, equipment or property damage immediately to the Supervisor or Project Manager in accordance with H-SYS-PRO-062-Manage and Report HSEQ Events. All persons requiring first aid treatment as a result of a workplace injury must immediately contact nominated First Aid Officers.

If the Subcontractor's or Labour Hire worker requires medical treatment away from the workplace, the Subcontractor or Labour Hire Workers must advise or ensure that the workers advise the Supervisor and Project Manager. If the Subcontractor or Labour Hire Workers or any of its workers are involved in or witness any incident at site, they must fully cooperate and ensure that any of its workers cooperate with Ertech or any statutory authorities' investigation of the incident.

Subcontractor or Labour Hire Workers must ensure that the site or area in which the incident occurs (including any tools, equipment and materials within the incident area) is disturbed in any way until the incident has been investigated by the Project Manager or delegate and subsequent approval has been given by Ertech to clear the incident site or area.

11.4 Injury Management

If a Subcontractor or Labour Hire worker requires medical treatment away from the workplace, the Subcontractor or Labour Hire Workers must immediately advise or ensure that their worker advises our site Supervisor or Project Manager in accordance with H-SYS-PRO-063-Manage Injuries and Return to Work.

Injured workers must not leave site unaccompanied. Any visit to a medical facility for work-related injuries must be accompanied to the appointment by a Supervisor (Subcontractor and/or Ertech). The first and initial consultation for the injury is to be conducted at an appropriate medical facility. Subsequent reviews can be facilitated at an Ertech preferred medical provided if requested by the Subcontractor. A copy of all certificates and alternative work plans provided by the Medical Practitioner with consent from the injured worker are to be provided to Ertech. Any return-to-work program programs developed for injured workers must be approved by Ertech Management prior to returning to site.

Ertech supports any worker injured at the workplace returning to safe and meaningful employment as soon as practicable. We recognise that an early and medically supervised return to work is vital to a worker's health and the health of our respective businesses, providing the injury sustained is not further aggravated. Having an injured worker return to work on a gradual basis is fully acceptable to Ertech, as is allocation to suitable alternative duties, until such time as the injured worker can resume fulltime normal duties.

12 Monitor, Review and Report

12.1 Task and Workplace Inspections

Subcontractors are required to proactively participate in Task and Workplace Inspections. Where the Subcontractor maintains control of the site or work group, they are then responsible for inspecting their work area, documenting it via the H-SYS-FOR-141-Task Inspections or H-SYS-TPT-080-Workplace Inspection documents and submitting to the Ertech Supervisor for registration and close out of any corrective actions that have been reported.

12.2 Audit

Subcontractors shall allow Ertech to enter onto any premises at which they are performing work on behalf of Ertech for the purposes of:

- conducting an audit or review of the subcontractor or the sub-subcontractor's HSEQ performance.
- confirming whether the subcontractor is complying with our management system; or
- Investigating an incident or near miss concerning the subcontractor or its sub-subcontractors in the performance of the works.

Where we are conducting an audit, review or investigation, the subcontractor must:

- ensure that we are allowed access to the premises;
- cooperate with us in the audit, review or investigation;
- do all other things that are necessary to facilitate the investigation, including but not limited to:
  - allowing us to conduct interviews; and
  - on request, providing us with all relevant documentation and information; and
  - not hinder or obstruct us in the conduct of that investigation.

Labour Hire Workers working on Ertech project must participate in any audit conducted on site where applicable. Refer to H-SYS-PRO-062-Manage and Report HSEQ Events and H-SYS-PRO-064-Manage Audits.

12.2.1 Federal Safety Accreditation Scheme Requirements

All contractors who perform work on projects that is directly or indirectly funded by the Commonwealth must be accredited to the Office of Federal Safety Commission (FSC) accreditation scheme. As part of our ongoing accreditation, all subcontractors are required to meet the requirements of the project Safety Audit Criteria (as relevant to the scope of works) or work under Ertech's requirements. The project is likely to be subject to audit internally by Ertech and/or a Federal Safety Officer to verify that minimum audit criteria requirements have been satisfied.

All Subcontractors and Suppliers to Ertech must read and understand the requirements of the Office of Federal Safety Commissioners' Project Safety Audit Criteria, as relevant to the scope of its work. Safety Audit Criteria can be downloaded via www.fsc.gov.au.

12.2.2 Reporting

Subcontractors must comply with any reporting requirements specific to the project and where noted throughout this guideline or stipulated in the contract.

12.2.3 Record Management

Subcontractor is responsible to manage records in accordance with Ertech subcontract, laws and regulations. The records must be accessible to Ertech as the works progress and on completion.

Subcontractors are responsible for providing as-constructed information as works are completed and compiled on a regular basis throughout the course of the project lifecycle for incorporation into the project MDR (Manufacturers Data Report) or project completion records to meet the contract requirements.