# Safety Plan

## Document Approval and Issue Notice

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**PREPARED:** Matt Prendergast Date: 21/04/2021

**APPROVED:** Mark McConnon Date: 29/06/2021

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# Table of Contents

## 1. Purpose

This Plan (the 'Plan') describes how the Project Delivery Group (PDG) should plan and manage its safety responsibilities and ensure contractors meet their safety responsibilities, in relation to delivery of renewals programs.

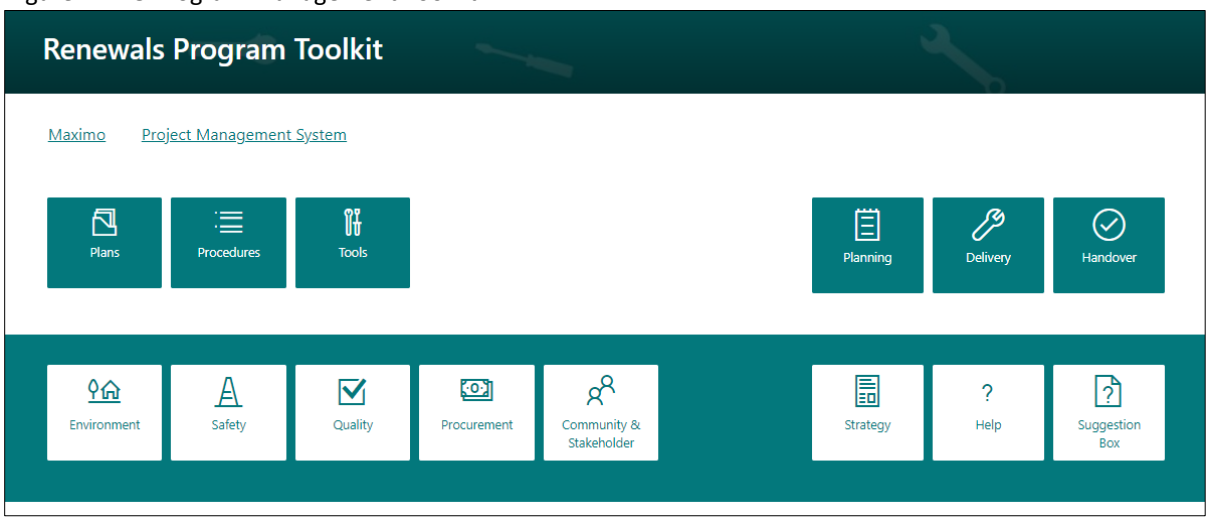
## 2. Scope

| | | |
|---|---|---|
| ☐ Program Management | ☐ Procurement | ☐ Community & Stakeholder |
| ☑ Safety | ☐ Environment | ☐ Quality |

This Plan applies to safety activities from planning to handover.

This Plan is part of an integrated management system known as the Renewals Program Toolkit, comprising plans supported by procedures and tools. The Toolkit is located on the Project Delivery Group intranet page. Figure 1 shows the Toolkit site.

Figure 1 PDG Program Management Toolkit




## 3. Standards, Policies and Regulatory Requirements

This Plan and associated activities are to align with the following standards and policies:

- TasWater Safety Management Policy
- Work Health and Safety Act 2012 (Tas)
- Work Health and Safety Regulations 2012 (Tas)
- All related regulations and codes of practice
- Any other laws relevant to health and safety
- Australian Standards relevant to health and safety
- TasWater risk management standards.

## 4. Definitions

This Plan should be read in conjunction with the Acronyms and Glossary document, located in the Help Section of the Toolkit.

## 5. Key Roles and Responsibilities

The General Manager, Project Delivery Division has overall responsibility for the implementation of this Plan. Further responsibilities are detailed in the below table.

Table 1 Key Stakeholder Responsibilities

| Role | Responsibilities |
|---|---|
| General Manager | • Govern program management across the PDG<br>• Ensure effective safety management on all PDG programs<br>• Ensure safety responsibilities are defined and resourced<br>• Ensure safety management systems and compliance strategies are in place and are effective<br>• Ensure PDG team members are provided with appropriate resources, training and education |
| Programs Leader | • Responsible for overall management of Renewals Programs<br>• Support a proactive approach to safety management |
| Team Leader | • Manage program delivery in accordance with this Plan<br>• Ensure safety responsibilities are allocated and held accountable<br>• Ensure procedures are followed<br>• Ensure safety risks are identified and managed in accordance with this Plan |
| Project Manager | • Manage project delivery in accordance with this Plan<br>• Coordinate/participate in safety meetings, reporting, audits, checks and other activities<br>• Ensure contractors are aware of their responsibilities and follow required processes and procedures, including this document. |
| Project Supervisor | • Supervise projects in accordance with this Plan<br>• Coordinate/participate in safety meetings, reporting, audits, checks and other activities<br>• Ensure contractors are aware of their responsibilities |
| Safety Advisor | • Advise on safety including compliance with statutory, TasWater and contractor requirements<br>• Coordinate/participate in safety meetings, reporting, audits, checks and other activities<br>• Ensure contractors are aware of their responsibilities<br>• Audit and upskill the staff involved in project delivery |

| Role | Responsibilities |
|---|---|
| Contractor | • Comply with TasWater contract and contractor requirements and statutory obligations<br>• Participate in safety meetings, reporting, audits, checks and other activities<br>• Ensure contractor's workers comply with TasWater contract and contractor requirements and statutory obligations<br>• Report hazards, incidents and opportunities for improvement. |

## 6. Key Procedures and Tools

Table 2 provides a summary of the procedures and tools that are to be used for renewals programs. These are all available via the Toolkit site.

Table 2 Procedures and Tools

| Procedure | Tools |
|---|---|
| Safe Excavation Manual - SMAN04<br>Safe Excavation - THSPRO14 | Safe Excavation Permit - THSFOR11 |
| Hot Work - THSPRO18 | Hot Work Permit - THSFOR12 |
| Heights / Live Edge Procedure - THSPRO10 | Heights Live Edge Permit - THSFOR06 |
| Asbestos Management Plan - THSMNP01 | Asbestos Registers |
| Working Remote and Working Alone - THSPRO08 | HSE Risk Register |
| Isolation, Lockout Tag Out Procedure - TOMPRO04 | Isolation Permit - TOMTEM02 |
| Confined Space Entry Procedure - THSPRO09 | Confined Space Entry Permit - THSFOR05 |
| Traffic Management Manual - THSMAN03 | HSE Risk Register |
| Cranes and Lifting – Fatal Risk Control Standard 6 | HSE Risk Register |
| Hazardous Zone - THSPRO11<br>Hazardous Chemical Manual - THSMAN01<br>Hazardous Zone Entry Work Instruction - THSWIS02 | Hazardous Zone Entry Permit - THSFOR07 |
| Chemical Management Plan - THSMNP02 | HSE Risk Register |
| Electrical Manual - TOMMAN122 | |
| SCADA Safety Manual (Waiting approval) | |
| Personal Protective Equipment (PPE) - THSPRO05 | HSE Risk Register |
| WH&S Site Access Authority Procedure - THSPRO17 | Authority to Work Form - THSFOR08 |
| Fatal Risk Controls - THSINF04 | HSE Risk Register |
| Risk Management Framework - TASFRA04<br>Risk Management Procedure – Part B: Assessment Tools - TASPRO19 | HSE Risk Register |
| TasWater Notification Reporting Classification and Investigation Procedure - THSPRO13<br>Incident Classification Guideline - THSGDL02<br>Investigation Guideline - THSGDL03 | |
| Safety Plan<br>Note: The Safety Plan is the parent document for the nominated tools to the right | HSE Risk Register<br>Project Kick off Meeting<br>SWMS Review Checklist<br>SWMS Field Review<br>Pre-start Meeting |
| Remote and Working Alone Procedure THSPRO08 | |

# 7. Planning

## 7.1. Project Owner

TasWater will appoint a project owner for each contractor. The contract owner will be a TasWater employee and have several responsibilities in relation to the HSE performance of the chosen contractor and ongoing supervision of the contractor.

## 7.2. Contractor Pre-Qualification

All contractors engaged by TasWater are required to have in place a functioning HSE management system. TasWater has a list of pre-qualified contractors who have been assessed as technically capable and able to meet the TasWater HSE requirements.

Prequalification of a contractor means a process of assessment of the contractor's Work, Health and Safety abilities prior to any engagement, to ensure the contractor's safe work system is robust enough to undertake works on behalf of TasWater.

There are two parts to prequalification that is undertaken by the contractor and TasWater prior to issuing a package of work. This includes a self-assessment tool and report and submission of documents by the contractor to TasWater to demonstrate their capability to conduct the activity in accordance with the TasWater HSE requirements. Refer to Table 3 – Work Contract Level on page 14 for further information.

### 7.2.1. Safety Management Plan

The Contractor shall submit to TasWater for review, a WHS Management Plan that sets out how the Contractor will manage workplace health and safety in accordance with the requirements of the Contract, including legislative requirements.

If required, the Contractor shall prepare and submit a project-specific Safety Management Plan Within 21 calendar days of commencement of work. Refer to Table 3 – Work Contract Level on page 14 for further information.

Other specifics relating to Safety Management Plans can be found within section 2 of the Principle Specific Conditions.

### 7.2.2. Contractor Self-Assessment Tool

Contractors will be required to complete a Contractor HSE self-assessment Report and provide supporting documentation to TasWater. This requirement is in addition to any other commercial submission that may be required. Failure to complete sections of the self-assessment tool or provide

required supporting information may exclude the contractor from the selection evaluation process. This will be entirely at the discretion of TasWater.

### 7.2.3. HSE self-assessment Report

TasWater's pre-qualified contractor list comprises contractors who have been assessed as technically capable and able to meet TasWater's HSE requirements. This includes:

- A completed Contractor HSE self-assessment Report
- Supporting evidence relating to the HSE self-assessment
- Records relating to the contractors HSE Performance
- A copy of the contractors WHS Management Plan.

## 7.3. Risk Management

TasWater is committed to the proactive management of all risks in a systematic way. The TasWater Risk Management Framework (the Framework) shown at Figure 2 provides the foundation and organisational arrangements for effectively and efficiently managing risk across TasWater. The Framework is based on and consistent with AS/NZS ISO 31000 Risk Management Principles and Guidelines (the Standard) and is supported by TasWater's Risk Management Policy (TASPOL01) and Risk Management Procedure (TASPRO10).

The Framework applies to anyone working for or on behalf of TasWater and all activities conducted by or on behalf of TasWater.

Figure 2 Risk Management Framework

## 7.4. Safety in Design (SiD)

Safe design is about integrating hazard identification and risk assessment methods throughout the design process to eliminate or minimise risks of injury throughout the life of the component being designed.

It is a legislative requirement in Australia to undertake a Safety in Design process for the design or modification of any plant, building or structure that constitutes a workplace.

When design is done the Designer is responsible for ensuring a SiD process is undertaken and infrastructure and assets that are delivered comply with the WHS legislation, WHS Regulations, relevant codes of practice and all relevant standards. The designer shall:

- ensure that, so far as is reasonably practical, all hazards and risks identified in a previous design phase(s) are addressed during subsequent design phases
- at the completion of the design, provide all results and status of hazards in the format described within the HSE Risk Register. To assist in this process the TasWater HSE risk register should be forwarded by the Project Manager or Safety Advisor to the design team to populate.

### 7.4.1. SID Risk assessment process

This risk assessment process must:

- Adopt a life cycle approach that considers construction, installation, commissioning, operation, maintenance, repair and demolition of the asset being designed
- Adopt a consultative approach during the design and construction phases with relevant stakeholders, including designers, constructors, operators, maintenance staff and H&S personnel
- Include facilitated risk assessment using appropriate risk assessment techniques within the HSE Risk Register, for all projects that require design work
- Identify and adopt risk control measures which reflect the hierarchy of controls.

### 7.4.2. HAZOP

A HAZOP is a systematic and critical examination of the consequences of plant failure to identify a wide range of risks including health and safety risks, environmental risks and the risk of damage to assets.

Although there is much scope to identify other more general design issues and opportunities, a HAZOP is not intended to be a design review.

Some reasons to undertake a HAZOP are listed below (other reasons may apply):

- hazardous substances are involved
- a new process is added to an existing plant
- unfamiliar technology is involved
- the design is complex
- there are a significant number of interfaces
- significant population nearby
- the site is in or near a sensitive location/environment.

Where applicable by the Designer shall conduct Hazard and Operability Study (HAZOP) workshops to address all possible hazards and ensure adequate measures have been incorporated. The workshops shall be held following completion of general arrangement drawings, P & IDs, hydraulic calculations and completion of the Functional Description (FD) for the project.

The Designer shall nominate an independent qualified facilitator and minute taker for these workshops. The workshops shall be recorded in an excel spreadsheet. The record and action items shall be confirmed in the workshop (display on screen to team). Records of the workshop shall be taken using a worksheet that is visible to all participants. The design representation including each P&ID shall be marked up during the workshop showing all changes discussed.

A workshop report for each HAZOP shall be produced by the Designer including methodology, record of attendees and minutes and submitted to TasWater. This shall be reviewed at regular intervals by the Designer to evaluate whether there have been any changes to the design, the design intent or hazards. In the event of changes, another HAZOP shall be held as appropriate to the degree of change. All action items are to be closed out and recorded. A closed-out report and the Post HAZOP drawings are to be submitted to TasWater. All risk items that are carried over to the construction phase shall be recorded and tracked in the HSE risk register.

Collectively these workshops will address the construction, operational and maintenance requirements, performance requirements and WH&S requirements as well as control and monitoring, suitability of instrumentation and control features and critical process alarms and parameters.

The reports shall be reviewed by the Designer prior to commencement of construction and at commissioning, and the Designer shall formally confirm to TasWater that all risks and suggested changes have been resolved.

### 7.5. HSE Risk Register

The HSE Risk Register is the primary tool to assist the Project/Site in managing the health, safety and environmental risks to ensure the activities are conducted in a manner to protect the health and safety of our people and those affected by our activities, and the environment in which we operate.

### 7.5.1. HSE risk register development - Phase 1

The HSE Risk Register shall be developed and managed by the project owner prior to the commencement of a new project/ construction works including any investigation works. Any residual risk identified within the safety and design process shall be included within the TasWater HSE risk register or similar.

### 7.5.2. HSE risk register development - Phase 2

The HSE Risk Register shall be reviewed and developed further by conducting Project/Site HSE Risk Workshops with the following people:

- TasWater Project Owner, typically the Project Manager
- Representatives of workers performing the work including contractor representatives
- Safety and environmental Professionals
- Other key stakeholders as identified by the Project Manager.

### 7.5.3. Contract

When issuing a contract, the project manager will ensure the contract details details:

- HSE requirements stipulated within the HSE Risk register (Phase 1) including any specific TasWater Fatal Risks and controls
- HSE key performance indicators – Refer to the Contractors Safety Management Plan and section 7.5.4 Contractor KPIs
- Actions required for continuous improvement e.g. improvements required to the Contractor's HSE Management Plan, risk assessment, organisation etc., including schedule for completion
- Determine WHS Contract Level (Refer to Table 3 – Work Contract Level)
- Level of Company monitoring based on classification of the contractor and the HSE risk of the tasks to be undertaken.

Refer to Procurement and Contract Establishment Procedure for further information.

Table 3 – Work Contract Level

| Work Contract Level | Definition | Minimum Requirements |
|---|---|---|
| Major | A contract involving Construction work where the cost of that work exceeds $250,000.00. | TW Induction<br><br>TW Pre-Qualified - Safety Management Plan<br><br>Principal Contractor Statement issued<br><br>Safety Management Plan - Site Specific<br><br>HSE Risk Register - relating to workplace risks only<br><br>SWMS<br><br>Documented Pre-Start<br><br>Safety in Design |
| Moderate | Involving construction work where the cost of the work does not exceed $250,000.00 but is classified as high-risk construction work. | TW Induction<br><br>TW Pre-Qualified - Safety Management Plan<br><br>Site Specific Safety Management Plan – If Required<br><br>HSE Risk Register - relating to workplace & works<br><br>SWMS<br><br>Documented Pre-Start<br><br>Safety in Design |
| Minor | Any construction work under $250,000.00, not classified as high-risk construction work | TW Induction<br><br>TW Pre-Qualified - Basic Work Procedures<br><br>Apply TW Fatal Risk Control Standard<br><br>Documented risk assessment - JSEA<br><br>Documented Pre-Start<br><br>Safety in Design (if required) |
| Basic | Non construction work that is office based and of an administrative nature only | TW Induction |

### 7.5.4. Contractor KPI's

The contractor shall develop and implement an internal audit/ inspection program at a frequency appropriate to the level of HSE risk and to ensure statutory compliance. This requirement shall be conducted as per the contractor's safety management system and include:

- Daily Pre-Start Meeting
- Task Hazard Analysis (THA) or an equivalent personal risk assessment process
- Weekly Toolbox Talks.

HSE KPIs will be established as part of the Scope of Work and engagement process. TasWater and the contractor will monitor these indicators during the contract.

The Contractor will complete and submit to the TasWater a monthly health and safety report. The report shall be submitted by the 27th of the month and shall be in a form approved by TW (which may include direct entry of information into TasWater's database via secure online portal).

The contractor shall ensure that audit/ inspection findings are actioned through an established corrective action system.

As a minimum the report will include:

- Site man-hour reports
- Safety statistics (in a format approved by TasWater) including total hours expended, LTI, MTI, first aid treatments, incident or near misses related to execution of work under contract
- KPIs completed for the month
- Corrective actions closed out for identified hazards, incidents and near misses/hits.

### 7.5.5. TasWater KPI's

TasWater HSE KPIs shall be defined within Checkit Planner or similar. The monitoring and reporting of contractor safety KPIs shall be determined and reviewed by the project manager on a monthly basis. Refer to Table 4 for Key Performance Indicators.

Table 4 TasWater HSE Key Performance Indicators

| System element | Frequency | Verification Method | Target/Who |
|---|---|---|---|
| TasWater inductions | As required | Audit of site personnel | 100% |
| Corrective action close | As indicated within reporting system | Corrective action system. | 100% |
| Workplace Inspections | Weekly or as indicated within Checkit Planner | Checkit Planner | 100% completed<br>TasWater PDG project staff |
| HSE Risk Register | At start of all contracts | Completed Risk Assessment | 100% completed |
| SWMS Review | Prior to works for all high-risk activities | Checkit Planner | 100% completed |
| Behavioural Observations (Supervisory Interactions) | Weekly | Checkit Planner | 100% completed |
| Pre-start inspections | Weekly | Checkit Planner | 100% for all equipment |
| Task Hazard Analysis | Prior to conducting physical works | Checkit Planner | 100% for all jobs on site |
| Incident reporting | As required | Audits | 100% for all incidents |
| Fitness for work | As planned | Number of drug and alcohol tests | 100% of agreed frequency |

## 7.6. Inductions

The Contractor shall ensure that all the Contractor's Personnel have a current General Construction Industry White Card.

The Contractor shall ensure that it and the Contractor's Personnel participate in and comply with any induction requirements of the Principal in its discretion prior to commencing work on site. This is managed using the RapidGlobal Contractor Management System.

### 7.6.1. TasWater Operational Sites

All contractor employees must complete a TasWater site specific induction prior to any entry for the conduct of any work on a TasWater operational sites.

### 7.6.2. TasWater Non-Operational Areas

These area sites where the work is being undertaken for TasWater however the contractor is in full control of the site, for example in the construction of a new treatment plant at a greenfield site, or small TasWater sites which are not manned.

The contractor shall have its own employee and site-specific induction. The induction shall at least describe the contractor's relevant hazards and risk management processes applicable to the work or work environment.

The contractor shall ensure that a visitor induction is available for any contractor personnel not conducting work on site.

The contractor shall ensure verification of competency for all employees (including trade competencies, certificates and licenses to perform regulated activities and plant operation); and will ensure that all personnel are competent to conduct tasks assigned to them under the contract.

In addition to the contractor's own staff training and inductions, all contractor personnel shall complete a TasWater general induction.

### 7.7. Authority to Work

Prior to commencement of works at any operational site approval must be obtained from the assigned Site Owner. The request, approval, monitoring and evaluation of work conducted at site is to be controlled based on and documented within The Authority to Work Form.

The Authority to Work form is provided to the Site Owner by the authorized TasWater representative/ Project Manager i.e. the initiator no less than seven days prior to the commencement of work for which approval is being sought.

The Site Owner is required to respond to the Initiator of the Authority to Work within five days**.** Those authorized to conduct the work are to confirm their intention to commence the planned work with the Site Owner at least 24 hours prior to arriving on the site.

### 7.8. Pre-Mobilisation

A Project Delivery Pre-mobilisation meeting will be completed in consultation with the Contractor and TasWater, prior to commencement of work. This process shall be documented using the premobilisation checklist.

# 8. Delivery

## 8.1. Risk and Change Management

The contractor must implement a structured risk management process. Changes shall be approved by authorised employees, communicated, managed and checked for effectiveness to ensure HSE risks are controlled. At a minimum it will include (or be equivalent to):

- An HSE risk register
- A personal risk assessment process such as a Task Hazard Analysis (THA)
- A Safe Work Method Statement (SWMS) or Job Safety and Environmental Analysis

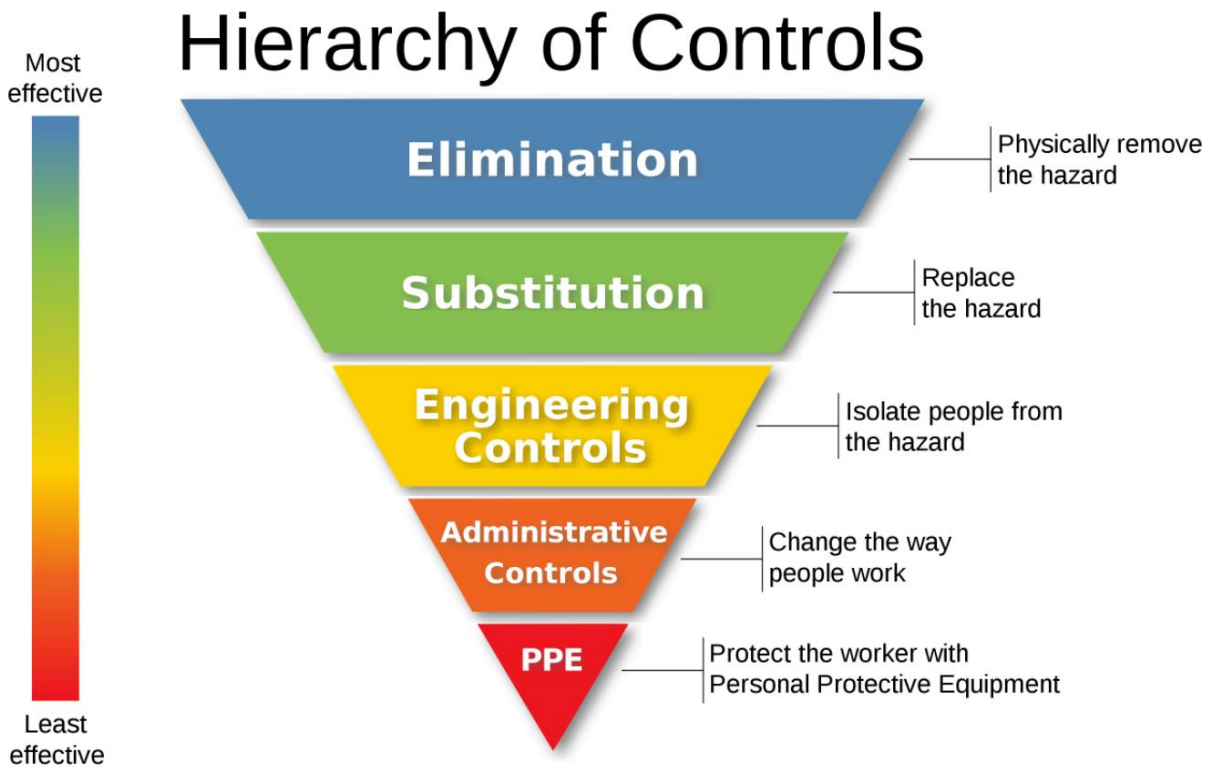
The contractor must maintain an up to date risk process recording identified risks and related controls that are relevant to their scope of work under the contract.

### 8.1.1. Design Change

If a design change affects the SiD outcomes the HSE risk register shall be updated accordingly. If a design change would otherwise trigger a HAZOP it shall be completed for that change.

The hierarchy of control shall be used to reduce all HSE risks to as low as reasonably practicable (ALARP).

Figure 3 Hierarchy of Controls



## 8.2. Communication and Consultation

The Contractor shall maintain a site diary and detail the communication and consultation arrangements for the Contract. The Contractor shall obtain and maintain documentary evidence of the content and outcome of any communication and consultation meetings.

TasWater will consider the following HSE communication processes a minimum requirement. The contractor shall conduct an equivalent to:

- Daily pre-start meetings
- Weekly toolbox talks – Including any relevant information issued by TasWater
- A shift handover communication process where tasks are conducted on a shift basis.

The contractor shall have processes in place to effectively communicate the following to all employees on a regular basis:

- HSE performance
- Incidents, hazards and risks
- Shared learnings from both internal and external incidents
- Procedural changes
- HSE obligations.

## 8.3. Site access Management

Pre-start Meetings are to be held prior to the commencement of daily or shift activities for all Contract Levels except for basic. Refer to Table 3 – Work Contract Level. Their purpose is to inform the workforce including all Contractors of the day's activities, safe work practices, environmental protection practices, work area restrictions, activities that may affect the works, coordination issues with other trades, hazards and other information that may be relevant to the day's work.

Some of the topics which should be included in these meeting are:

- Summary of work activities
- Safety alerts discussed
- Any new hazards identified
- Applicable Permits & ATW conditions
- Summary of SWMS to be used
- PPE Requirement
- Relevant emergency details – If not previously communicated
- Coordination of work activities
- Induction requirements
- Confirmation of any required licenses and white card.
- Emergency response process requirements

The Pre-start shall also be used as a site access register at all work sites. The register is to be used to record all personnel that enter the work site and their induction status

The contractor shall have a process in place to ensure any sub-contractors and/or suppliers meet the requirements of the approved HSE system.

## 8.4. Incident Reporting and Management

It is a mandatory requirement that all employees, contractors and visitors report incidents by phone as soon as practicable to their Coordinator/ Manager/ TasWater contact person. "As soon as practicable" means once immediate containment has been initiated and the basic facts of what happened are known. It is expected that this will take no more than two hours.

The contractor shall have a documented process that mandates all work is to be discontinued following any significant incident, as soon as it is safe to do so. Work shall not resume until all temporary actions have been implemented and approval provided by the TasWater contract owner.

Notification should cover a very brief outline of "What", "Who", "When", "Where", "Why", consequences (potential and actual) and the next steps, including any assistance required.

Upon receiving a notification, the Responsible Manager is to establish and confirm both the rating and classification of the incident. This information must be entered into IRIS within 48 hours.

If the incident requires a Regulator to be notified, the Responsible Manager is to do so. They must consult the relevant subject matter specialist for advice (i.e. Health and Safety, Environment).

The contractor shall ensure that a formal and standardized process is in place for recording, investigating and reporting incidents and for managing corrective and preventive actions.

The contractor shall ensure all significant incidents are investigated using the incident cause analysis method (ICAM) process (or equivalent) and employees are appropriately trained in the investigation process.

TasWater reserves the right to conduct investigations for any incident. The contractor shall assist as required in a timely fashion.

For further information refer to TasWater Notification Reporting Classification and Investigation Procedure - THSPRO13.

## 8.5. Emergency Management

As part of the Hazard Identification and Risk Assessment process for the projects, potential emergency situations should be identified and recorded in the HSE Risk Register for all contract Levels except for basic – refer to Table 3 – Work Contract Level.

All projects must conduct an Emergency Response Risk Assessment as part of the development of the HSE Risk Register to identify all foreseeable Project specific emergencies:

1. Identify the requirements to develop specific Emergency Action Plans for each identified potential emergency
2. Identify the resources including communications that will be required to efficiently respond to the identified potential emergencies
3. Identify the training and competency requirements for workers who will be appointed to the Project Emergency Response Team.

Contractors shall develop relevant emergency response plans according to the works undertaken.

Typical assessments may include:

- Typical potential emergency situations and/or hazards include;
- Fire
- Trench Collapse
- Hazardous chemical spills and poisonous gas emission
- Major structural failure
- Vehicle/plant/property damage
- Confined Space
- Working at Height
- Inadvertent contact (people/plant/equipment) with live services (electrical, gas etc).

In the event of an emergency all communications outside the business, will be handled through the TasWater Project Manager.

Training and instruction regarding emergency preparedness and response must be provided. Those included in the Emergency Response Team include Fire Wardens, First Aiders and any other specialists required to assist in the emergency.

#### 8.5.1. TasWater Operational Sites

All contractor employees must be aware of and follow the emergency procedures in place at TasWater operational sites.

#### 8.5.2. TasWater Non-Operational Areas

The contractor shall have a site-specific Emergency Response Plan detailing how they respond to likely emergency scenarios

- The contractor shall have Emergency Rescue Plans for all high-risk activities
- The contractor shall ensure that its emergency team or team member shall be trained in handling emergencies consistent with the Contract
- The contractor shall ensure periodic emergency scenarios are practiced as part of emergency exercise training and evidence of emergency exercise training is available to TasWater on request
- The contractor shall have a hydrocarbon and chemical spill response and reporting procedure and relevant clean up equipment based on the risk.

### 8.6. Fatal Risk Controls

TasWater has identified 12 areas of its operations where there are critical health and safety risks. These are listed in the HSE Risk Register. A series of risk control standards have been developed to provide a framework to minimise the risk of injuries or incidents relating to these activities.

Contractors must demonstrate that they can comply with the requirements outlined in the TasWater Major Hazard Risk Control Standards as they apply to the tasks they conduct.

Refer to THSINF04 - Fatal Risk Control Link for further information.

## 8.7. Monitoring and Measurement

The contractor shall ensure monitoring and evaluation is carried out for activities that could cause adverse environmental or health impacts and where required by legislation.

The contractor will formally report against the contractor HSE Performance Indicators on a monthly basis.

The contractor must define, implement and maintain a risk-based hygiene monitoring program for site activities and potential personnel health exposures or shall participate in TasWater' s hygiene monitoring program.

The contractor shall establish and maintain a pre-employment and health surveillance program for all employees that is consistent with regulatory requirements and operational health risks. All personnel shall be deemed fit for work prior to mobilization.

The contractor shall ensure risk-based screening of personnel for substance abuse will be undertaken to minimize the risk of incidents and injuries related to the use of alcohol and other drugs (AOD). The following types of AOD testing will be applied at TasWater workplaces by TasWater:

- Random testing
- For cause testing
- Post incident testing.

# 9. HSE Specific Elements

## 9.1. Safe Work Method Statement (SWMS)

A SWMS is a document that sets out the high-risk construction work activities to be carried out at a workplace, the hazards arising from these activities and the measures to be put in place to control the risks. All SWMS shall meet or exceed relative TasWater provided systems, refer to Section 9.1.1. SWMS review.

A SWMS must:

- identify the work that is high risk construction work
- specify hazards relating to the high-risk construction work and the risks to health and safety
- describe the measures to be implemented to control the risks so the work is carried out safely
- describe how the control measures are to be implemented, monitored and reviewed and the residual risk determined.

The Contractor shall prepare and submit SWMS a minimum of seven calendar days prior to the start of the work activity.

### 9.1.1. SWMS Review

The project owner for the works must ensure SWMS for Fatal Risk activities and High-Risk Construction activities have been conducted prior to the commencement of work.

This process is to:

- Obtain a SWMS from the contractor and ensure a review is conducted using the SWMS Review before the work commences
- Ensure the relevant TasWater minimum controls from within the HSE Risk Register and fatal risk controls (where relevant) are included in the SWMS.

A SWMS Review checklist will be used.

### 9.1.2. SWMS Field Review

The project owner must monitor arrangements to make sure the high-risk construction work is being performed safely in accordance with the SWMS. Monitoring compliance and review of the SWMS can be achieved using the SWMS field review tool.

If the SWMS review identifies changes to either the SWMS or the work methodology, the activity stops immediately, and the project owner must review the SWMS to ensure hazards and their risks are effectively controlled.

Any changes to the SWMS are a responsibility of the Contractor and require a version update and the changes to be communicated to the workers completing the work activity.

## 9.2. Job Safety Analysis (JSEA)

Job Safety and Environment Analysis (JSEA) is a process used to formally assess a job for hazards and consequential risk. The process may be used by the contractor on all work that is not defined as high-risk construction work activities.

## 9.3. Task Hazard Assessment

A Task Hazard Analysis (THA) or an equivalent personal risk assessment process must be established by the contractor to require their employees to stop and evaluate the work area prior to starting in order to identify, assess and control risks. The contractor must either employ this system or demonstrate a similar system, such as Take 5, acceptable to TasWater.

A THA shall be undertaken in any of the following situations:

- If it is an individual's first time performing a task
- When environmental or work conditions have changed since the last time the individual performed this task
- If an individual feels uncertain about a task.

## 9.4. Safe Operating Procedures and/or Work Instructions

Operating Procedures and work instructions are to be used by the contractor for repetitive tasks. JSEAs or similar assessments should have been carried out in the first instance to identify and record risks associated with the work described in the procedure or instruction. The contractor may employ differing terminology however the outcome must be consistent with the TasWater documents.

An operating procedure/ work instruction may only be used where the job or task is unchanged and the associated risk levels or the environment the work or job is carried out in are unchanged. All members of the work team need to have read, understood and be deemed competent in the task covered by the operational procedure/work instruction. Records of competency assessment are to be retained by the contractor.

## 9.5. Pre-start Meetings

The Supervisor must undertake a daily/shift Pre-start meeting with the work crew prior to each shift, to communicate the daily work scope, changes in site conditions, applicable permits, works being conducted in the area and any specific hazards not captured in and managed in the SWMS.

## 9.6. Excavation and Trenching

Pre-planning and co-ordination between those involved in excavation operations and activities are essential to ensure the safety of workers and protect members of the public.

Before excavation commences, an excavation permit and all available information should be collected by the contractor about the exact location and details of the excavation, and disposal areas for excavated material, so that suitable methods of working can be planned, and the most appropriate plant for the job can be obtained.

Approach distances for working near or in proximity to underground services should be determined by consulting the Dial Before You Dig (DBYD) and relevant asset owners. Once determined, the contractor should add these to the WHS management plan, the applicable excavation permit, and communicate Safe Approach Systems (SADs) to applicable workers, typically through induction or training.

A risk assessment must be carried out by the contractor to determine the level of risk to workers and the type(s) of control method/s or protection to be provided.

All excavations shall be completed by the Contractor in accordance with TasWater's Safe Excavation Procedure. For further information refer to Excavation and Safe Excavation Procedure - THSPRO14.

### 9.7. Confined Space

The purpose of the below procedures is to provide a safe system of work for confined space entry and to ensure that risk associated with entry to and exit from the space is minimised where elimination of the hazard is not reasonably practicable

The below associated procedure shall apply to all managers, employees and contractors conducting confined space entry for or on behalf of TasWater. For further information refer to:

- THSPRO09 - Confined Space Entry Procedure
- THSFOR05 - Confined Space Entry Permit.

### 9.8. Asbestos

During the project planning review phase, the hazards associated with asbestos, ACM or SMF in the workplace must be identified through the risk assessment process in accordance with HSE Risk Management Procedure(s). Managing the risks associated with asbestos involves identifying asbestos and ACM at the workplace and recording this in the asbestos register.

Factors to consider when assessing the risk include:

- the age of buildings being demolished, materials used and whether any refurbishments were undertaken prior to 31 December 2003
- presence of building waste material in any stockpiles or filled areas on the site
- anecdotal evidence from workers o visual inspection.

The Contractor shall ensure that the identification and removal of asbestos and asbestos-related materials is carried out only by a contractor appropriately licenced by WorkSafe Tasmania.

Asbestos removal must be in accordance with TasWater Asbestos Management Plan THSMNP01, WorkSafe Australia's Code for Safe Removal of Asbestos and the Work Health and Safety Act 2012.

The Contractor shall ensure that airborne asbestos fibres are monitored in accordance with the applicable legislative requirements governing asbestos handling, and any planning conditions.

Where an unidentified material is discovered during operational activities and is suspected as being ACM or ACD and is not recorded on the site asbestos register then a competent person must be consulted to review and identify the material

The Contractor shall report to TW any suspected asbestos containing materials discovered while undertaking the work under the Contract. The Contractor is to avoid removal of any such materials until a method for safe removal has been agreed with TasWater.

### 9.9. Isolation and Permit to Work

Contractors and visitors cannot apply isolation; however, they can place their personal isolation lock and person danger tag to an existing isolation applied by a TasWater authorised person. The only exception to this rule is Electrical contractors who have been trained and deemed competent to

undertake isolations against TasWater procedure and formally authorised to complete an electrical isolation.

#### 9.9.1. TasWater Operational Sites

When operating on TasWater operational sites the contractor must operate under an Authority to Work or a permit issued by TasWater staff with all isolations conducted and signed off by TasWater staff. This includes unmanned sites.

#### 9.9.2. TasWater Non-Operational Areas

When a contractor is operating on behalf of TasWater on a non-operational site, for example:

- The contractor is engaged in the construction of a new site for TasWater and the construction site is under the full control of the contractor
- The contractor is engaged to expand an existing TasWater site and the construction area is clearly demarked and under the control of the contractor

The Contractor must develop and employ a Permit to Work/ Authority to Work and Isolation system compliant with the TasWater system. The contractor must ensure all personnel are trained and deemed competent in the Permit system. Contractor Permit Coordinators and Isolation Officers must be appointed in writing. Permits will be required for but not limited to:

- Tasks requiring the isolation of hazardous energy or substances, such as electricity, high pressure water/steam, heat, chemicals or dangerous goods
- Work within an electrical exclusion zone
- Tasks that have the potential to impact on the water treatment process
- Tasks that have the potential to result in a physical change to the work environment such as scaffolding, excavation, hot work (welding/grinding)
- Tasks that require entry to confined spaces
- Tasks that require the removal of asbestos
- Tasks that require employees to work at heights.

Refer to TOMPRO04 - Isolation, Lockout Tag Out Procedure for further information

### 9.10. Traffic management

All project/ operational sites must be assessed prior to site establishment (where possible), to assess the requirement for plans to manage traffic and/or pedestrians and ensure these are created prior to commencing work activities. All temporary traffic management practices across Tasmania must be conducted in accordance with the Austroads Guide to Temporary Traffic Management.

In addition to implementation of the AGTTM, organisations must comply with:

- any relevant Australian Standards, in particular AS1742.3 – Manual of uniform traffic control devices, Part 3: Traffic control for works on roads.
- the Department of State Growth's Traffic Control for Work on Roads – Tasmanian Guide (Were applicable)
- Council Requirements.

Refer to THSMAN03 - Traffic Management Manual for further information.

## 9.11. Vehicles, Mobile Equipment and Machinery

All vehicles, mobile equipment and machinery under the control of the contractor will be maintained in a safe condition while on site and only operated by suitable licenced personnel.

All vehicles, mobile equipment and machinery will be subject to prestart inspections and will be included in a planned maintenance program. Equipment will be fitted with appropriate guarding where required.

Pre-start checks will be carried out using checklists designed specifically for the type of equipment they are being used on. The pre-start checklist will include all critical aspects and components of the equipment it is being used on. Personnel carrying out the prestart check will be competent to do so.

Any faults identified during the pre-start must be addressed before the equipment is used and are to be reported in the monthly contractor activity report submitted to TasWater.

Contractors are required to maintain a register of all vehicles, mobile equipment and machinery. This register is to contain a unique identifier for each piece of equipment, the routine maintenance and inspection schedule and the compliance status with this schedule. Evidence of ongoing compliance shall be provided to the contract owner as required.

## 9.12. Lifting Operations

Lift planning must be completed to identify the hazards associated with the work environment, loads, slinging and crane configurations. Planning assessments must be completed for each new crane set-up.

Personnel who are directly involved in crane lifting operations must hold relevant licenses to perform high risk work and have successfully completed a verification of competency.

Registration of plant designs and items of plant must comply with regulatory requirements.

Refer to Lifting Equipment THSINF06 - Fatal Risk Control Standard 6 – Cranes and Lifting**.**

## 9.13. Working at heights

Hazard identification, risk assessment and appropriate control measures that manage falls from heights must be understood, communicated and implemented prior to commencing the task. Fall protection control measures must provide the highest practicable level of protection for the task.

Activities and locations within TasWater that could cause injury due to a fall include, but are not limited to:

- Any structure or plant being constructed or installed, demolished or dismantled, inspected, tested, repaired or cleaned
- Fragile surfaces (for example, reservoir roofs, treatment plant roofs, out buildings)
- Potentially unstable surfaces (for example, where there is potential for ground collapse)
- Using equipment to work at the elevated level (for example, when using elevating work platforms or portable ladders to inspect reservoirs, tanks, inspecting towers)
- Sloping or slippery surface where it is difficult for people to maintain their balance (for example, on glazed tiles, dam walls)
- Near an unprotected open edge (for example incomplete pits, platforms, stairwells, roofs)

- Near a hole, shaft or pit into which a worker could fall (for example, near pits, sewer access pits, wet wells).

Refer to THSPRO10 - Heights / Live Edge Procedure for further information

## 9.14. Elevated Work Platforms

Where Elevated Work Platforms (EWPs) are to be used on site the following conditions must be met by the contractor:

- Operators of EWP's shall hold an appropriate certificate of competency
- A Task Hazard Analysis shall be conducted if an operational procedure or work instruction is not available
- Daily prestart checks are to be completed for each EWP to ensure it is in operational condition and a logbook record maintained
- EWPs shall not be used for the purposes of transporting items
- A person must be designated to control the work platform, scissor lift or man-lift ('the basket'). This person shall hold an appropriate certificate of competency
- Every person in the basket (except scissor lifts) must always be secured with appropriate Fall Protection equipment
- A person who is not the primary operator of the basket must be competent to operate the basket in an emergency and to lower the basket to the ground or engage the emergency stop when required
- A spotter is to be used where a risk assessment determines it as a suitable control to prevent contact with staff, infrastructure, power lines or other machinery.

## 9.15. Scaffolding

Only competent personnel with the appropriate qualification shall install, modify or dismantle scaffolding.

### 9.15.1. Fixed Scaffold

Contractors are responsible for ensuring:

- Scaffolds must have complete floors, guardrails mid rails, toe-boards and safe access and egress
- Ladders, stairs, walkways and scaffolding shall conform to AS1657, AS1892, and AS4576
- During erection or dismantling an exclusion zone (signed and barricaded) shall be created so that falling objects cannot strike persons or damage material
- Scaffolds must be free of trip hazards and dangerous protrusions
- The Scaff-tag system must be used for all scaffolds during erection, modification and use
- During erection of scaffold it is essential that scaffolders wear safety harnesses attached to safety lanyards onto a secure anchor point on an adjacent structure. If this is not possible, an approved alternate means of fall prevention is to be adopted
- Fixed scaffolds (expected life over 1 month) must be inspected monthly and the Scaff- tag adjusted to reflect the inspection
- Temporary Scaffolds (expected life less than 1 month) must be inspected weekly by a scaffolder and the Scaff-tag adjusted to reflect the inspection.

### 9.15.2. Mobile Scaffolds

Contractors are responsible for ensuring:

- Mobile Scaffolds may be erected by a competent person without a scaffolders licence where the work platform is no more than three metres above the ground and the local area management gives their permission
- Mobile scaffolds may not be moved whilst persons are on the scaffold
- All mobile scaffolds must have lockable wheels that must be activated before use.

## 9.16. Barricading

Contractors are responsible for ensuring:

- All temporary hazards in areas where people, including visitors, members of the public and mobile equipment may enter shall be appropriately barricaded.
- Where the hazard is expected to exist for less than one day and does not present immediate danger, the barricade may consist of a visual warning and demarcation only. Personnel may enter these areas if they have a valid need and have identified and understood the nature of the hazard.
- Where the hazard presents immediate danger or will exist for more than one day, the barricade shall provide a physical barrier as well as a visual warning. Personnel shall not enter these areas unless they are specifically working in the hazard zone. Hard physical barriers shall be located wherever there is an unprotected edge.
- All barricades shall have an appropriate safety tag attached detailing the nature of the hazard and contact details for the person installing the barricade.

## 9.17. Machinery Guarding

Contractors are responsible for ensuring:

- All electrical, mechanical and pneumatic machinery is not to be operated unless all guards and/or barricades are in good condition and secured in the correct location. Guarding must provide protection from all possible access points.
- Plant, equipment and machinery shall comply with legislated emergency stop requirements.
- Where personnel are to undertake works near rotating or moving plant or machinery, a risk
- assessment must be undertaken to ensure that the risk of injury or damage by inadvertent contact is eliminated.

## 9.18. General Electrical safety

Contractors are responsible for ensuring:

- All electrical installing work must be carried out in accordance with the requirements of supporting Act and regulations and in accordance with AS 3000:2007 (Australian/ New Zealand Wiring Rules).
- Electrical installations at construction sites shall be in accordance with AS/ NZS 3012 Electrical installations – construction and demolition sites.
- Electrical repair work or diagnostic work on electrical equipment shall only be performed by personnel that are qualified and authorised to perform this task.

For further information relating to electrical safety refer to Electrical Manual - TOMMAN122.

### 9.18.1. Portable Electrical Equipment

Contractors are responsible for ensuring:

- All portable electrical equipment must be protected by an RCD or ELCB

- Flexible cords shall be protected from mechanical damage and supported off the floor/ground where they cross access/egress routes or potential wet areas
- Flexible cords shall not be used while coiled or reeled
- Flexible cords shall only be used on the floor/level of the switchboard from which they originate
- Double-adaptors and 3-pin plug ("piggy-back") adaptors shall not be used
- Portable electrical equipment shall be visually inspected prior to each use.

Contractors are responsible for ensuring portable electrical equipment shall be tested and tagged as follows:

- Office or stationary equipment need only be tested annually
- portable equipment and welding machines quarterly
- Tag colours are to be in accordance with AS/NZS 3760.

### 9.18.2. Fixed Electrical Equipment

Contractors are responsible for ensuring:

- Fixed electrical equipment shall be inspected on a regular basis in accordance with the applicable legislation, Australian Standards and manufacturer's recommendations
- The regular testing of portable RCDs and permanently installed RCDs shall be as required by legislation.

## 9.19. Hot Works

Hot work is a term used to describe heat and spark producing processes such as welding, flame cutting and grinding. The specific workplace hazards associated with hot work are:

- heat, open flames or flying sparks that can ignite any flammable materials, gases or vapours
- gas burning (e.g. Acetylene, LPG or MAPP gas)
- Welding, brazing or electric arc welding,
- Soldering,
- Heat gun operation,
- Use of open flames,
- Grinding,
- Power operated tools that cause spark generation, for example cutting tools, and;
- Use of portable petrol or other internal combustion engines and other similar appliances that produce enough heat to ignite flammable vapours or have external components, such as exhausts, capable of igniting dry substances such as grass.

The designated authorised person must check that there are no fire bans in place and document the outcome on the hot work permit. This information is available on the TasFire Service website or phone 1800 000 699.

Refer to the below for further information.

- THSPRO18 - Hot Work Procedure
- THSPRO11 - Hazardous Zone Procedure

## 9.20. Dangerous Goods and Hazardous Materials

Dangerous goods or hazardous materials are not permitted on site without the approval of TasWater. These substances shall only be stored in areas and quantities approved by TasWater. A

register of hazardous substances shall be maintained by the contractor (including quantities and storage locations) and shall be provided to the TasWater Contract Owner.

Contractor personnel shall be trained in the use of hazardous substances and Safety Data Sheets shall be readily available.

The purchase, transportation, storage, handling, use, disposal, and spill response of hazardous substances, including hydrocarbons, must be in accordance with statutory requirements and environmental obligations applicable to TasWater.

### 9.21. Gas Cylinders

Contractors are responsible for ensuring:

- Gas cylinders shall be stored in an upright position and be secured to a fixed structure. Empty and full cylinders shall be segregated, and each storage area shall be labelled accordingly.
- Gas cylinders shall not be stored where they will be at risk from vehicular traffic.
- All storage is to be in accordance with AS 4332.
- Cylinders shall only be transported in approved cradles or trolleys specifically designed for the handling of cylinders.

### 9.22. Welding

Contractors are responsible for ensuring:

- All welding on TasWater sites is to be conducted under the control of a hot work permit.
- Leads and equipment shall be inspected for damage.
- Damaged equipment and leads shall be removed from service for repair or discard.
- Any transformer or invertor type welding machine will be fitted with a Voltage Reduction Device (VRD).
- All other types of welding machines will be fitted with an in-line isolator or a “dead man” type switch.

### 9.23. Explosive Power Tools

Written permission by TasWater is required prior to bringing explosive-power tools onto any TasWater site.
Contractors are responsible for ensuring:

- No person will use an explosive-powered tool until they have been trained to use and maintain the tool and are deemed to be competent to operate the tool.
- Explosive-powered tools must not be used near other persons unless adequate safety precautions are taken. Warning notices must be posted when an explosive-powered tool is being used.
- An explosive-powered tool is not to be used in situations where flammable or explosive gas, liquid or dust may be present.
- Only cartridges suited to both the explosive-powered tool and the work to be performed are to be used. Explosive-powered tool will be stored unloaded in a safe place inaccessible to unauthorised persons. Cartridges must be stored in locked metal containers.

## 9.24. Site establishment and facilities

The Contractor shall supply and establish all necessary facilities (including sanitation) for Contractor's Personnel to the requirements of all relevant authorities. The Contractor is responsible for the provision of all temporary facilities and amenities necessary and adequate for the execution of the work under the Contract.

Before any building, structure, compound or work area is erected or installed on the site, the Contractor shall supply necessary site equipment as per the Principal Specific Conditions.

The Contractor where directed as part of the Contract will provide facilities for the Principal's Representatives. This may include office desk space, chairs, bookcase and /or a separate meeting room.

Such installation shall be in the allocated area only. If the Contractor's site facilities or laydown/storage areas subsequently disrupt the Principal's operations, the Contractor shall relocate, at its own cost, to a suitable area agreed with the Principal.

The Contractor shall provide and maintain any temporary electrical power and distribution facilities required and shall, as a minimum, comply with the requirements of AS3012, *Electrical Installation – Construction and Demolition Sites*. The use of generators on site shall be in accordance with the applicable environmental management plan regarding noise abatement.

The Contractor shall be responsible for the provision of artificial lighting if required at the site to ensure a safe worksite.

## 9.25. Storage on Site

The Contractor shall store materials and equipment on site to prevent damage to the site, minimise interruption to the existing plant, infrastructure and services, and to minimise hazards to persons, materials and equipment. The Contractor shall ensure that storage areas are maintained in a neat and tidy condition.
The Contractor shall not use roads, driveways, paths, hard-standings and the like forming part of the Works for access or storage unless prior written approval has been provided by the Principal.

## 9.26. Dangerous Goods Registration

Dangerous goods or hazardous materials are not permitted on site without the approval of TasWater. These substances shall only be stored in areas and quantities approved by TasWater. A register of hazardous substances shall be maintained (including quantities and storage locations) and shall be provided to the TasWater Contract Owner.

## 9.27. Sub-Contractors

Sub-contractors may be employed by the contractor to carry out all or part of their contract where this is permitted under the terms of their contract.

Where subcontractors are to be employed, the principal contractor will select and manage the subcontractors according to TasWater's Contractor Management procedure.

The TasWater Contract Owner must be advised of and approve the use of a sub-contractor where this has not been stipulated and agreed within the original contract, before the subcontractor starts work or enters a TasWater site.

## 9.28. Working Alone on TasWater Site

Contractor personnel are not permitted to work alone on TasWater operational sites without the approval of the TasWater Contract Owner. If continuous visual contact is not maintained, a scheduled communications check is to be put in place and recorded.

Refer to THSPRO08 - Working Remote and Working Alone Procedure for further information.

## 9.29. Personnel Protective Equipment (PPE)

PPE requirements include as a minimum that all personnel working on site will wear full length trouser/ pants, long sleeve shirt (sleeves down), steel capped safety boots, hard hat and eye protection all to Australian Standard. Other PPE will be worn based on site risk assessment.

Refer to THSPRO05 - Personal Protective Equipment (PPE) Procedure for further information.

## 10. Handover

Any Residual Risks from project HSE registers or hazardous and/or dangerous goods introduced to TasWater sites after the completion of projects shall be communicated by the Project Manager to TasWater's Service Delivery division. This information can be communicated using the:

- Project closure check
- Hazardous area dossiers
- Dangerous goods manifest
- Hazardous substances registers
- Asbestos register

For further information please refer to Project Handover and Closure – Procedure.

## Appendix A – Construction & High-Risk Construction Definitions

**'Construction work'** is defined in the WHS Regulation as any work carried out in connection with the construction, alteration, conversion, fitting-out, commissioning, renovation, repair, maintenance, and refurbishment, demolition, decommissioning or dismantling of a structure. For further information please refer to WHS Regulations Chapter 6 Part 6.1.

Without limiting subregulation (1), construction work includes the following:

a) any installation or testing carried out in connection with an activity referred to in subregulation (1);
b) the removal from the workplace of any product or waste resulting from demolition;
c) the prefabrication or testing of elements, at a place specifically established for the construction work, for use in construction work;
d) the assembly of prefabricated elements to form a structure, or the disassembly of prefabricated elements forming part of a structure;
e) the installation, testing or maintenance of an essential service in relation to a structure;
f) any work connected with an excavation;
g) any work connected with any preparatory work or site preparation (including landscaping as part of site preparation) carried out in connection with an activity referred to in sub regulation (1);
h) an activity referred to in subregulation (1), that is carried out on, under or near water, including work on buoys and obstructions to navigation.

Construction work **does not** include any of the following:

i) (a) the manufacture of plant;
j) (b) the prefabrication of elements, other than at a place specifically established for the construction work, for use in construction work;
k) (c) the construction or assembly of a structure that once constructed or assembled is intended to be transported to another place;
l) (d) testing, maintenance or repair work of a minor nature carried out in connection with a structure;
m) (e) mining or the exploration for or extraction of minerals.

**High Risk Construction Work**

1. involves a risk of a person falling more than 2 metres; or
2. is carried out on a telecommunication tower; or
3. involves demolition of an element of a structure that is load bearing or otherwise related to the physical integrity of the structure; or
4. involves, or is likely to involve, the disturbance of asbestos; or
5. involves structural alterations or repairs that require temporary support to prevent collapse; or
6. is carried out in or near a confined space; or
7. is carried out in or near –
    - a shaft or trench with an excavated depth greater than 1.5 metres; or
    - (ii) a tunnel; or
8. involves the use of explosives; or
9. is carried out on or near pressurised gas distribution mains or piping; or
10. is carried out on or near chemical, fuel or refrigerant lines; or
11. is carried out on or near energised electrical installations or services; or
12. is carried out in an area that may have a contaminated or flammable atmosphere; or
13. involves tilt-up or precast concrete; or
14. is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor that is in use by traffic other than pedestrians; or
15. is carried out in an area at a workplace in which there is any movement of powered mobile plant; or
16. is carried out in an area in which there are artificial extremes of temperature; or
17. is carried out in or near water or other liquid that involves a risk of drowning; or
18. involves diving work.