WHS- 45 Construction Work Procedure

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1 Purpose

The purpose of this procedure is to outline the process for managing risks associated with Construction work conducted on Territory Generation maintained sites.

2 Scope

This procedure applies to all Territory Generation maintained sites.

3 Roles and Responsibilities

Role / Title	Responsibility
Chief Executive Officer	Shall ensure that : • All personnel are aware of requirements of this procedure and its management in sites under Territory Generation control. • Initiates procedure review as required.
All Managers/Site Coordinators	Shall ensure that: • This procedure is put in place at all Territory Generation controlled power stations sites. • Personnel are advised and trained as necessary in the procedure to be followed. • Contractors are informed of and follow the procedure, where applicable. • Contribute to procedure reviews
Project Officers/Contract Managers	Shall ensure that: • Contractors under their control are informed of and follow the procedure, where applicable. • Contribute to procedure reviews
All Personnel	Shall ensure that: • This procedure is followed personally and by contractors/visitors under their control, where applicable • Contribute to procedure reviews
Document Owner	• The position responsible for the preparation, review and accuracy of this document.
Document Sponsor	• The position responsible for the approval and use of this document

4 Definitions

Construction Project	A construction project is a project that involves construction work where the cost of the construction work is $250,000 or more.
Construction Work	Means any work carried out in connection with the construction, alteration, conversion, fitting-out, commissioning, renovation, repair, maintenance, refurbishment, demolition, decommissioning or dismantling of a structure. (See Section 7)
Territory Generation Representative(s)	Means the person(s) from Territory Generation who have the responsibility to ensure that contractors are supervised and comply with Territory Generation policies and procedures while conducting work on, or for Territory Generation. This Responsible person(s) may include: • Project Managers; • Contract Managers; • Territory Generation Superintendents; • Site Managers/Coordinators; • Territory Generation OH&S Section Personnel; • Supervisors; • Coordinators; • Leading Hands; • Persons in charge of specific work tasks or areas.
High Risk Construction Work	Means construction work that: • Involves a risk of a person falling more than 2 m; or • Is carried out on a telecommunication tower; or • Involves demolition of an element of a structure that is load-bearing or otherwise related to the physical integrity of the structure; or • Involves, or is likely to involve, the disturbance of asbestos; or • Involves structural alterations or repairs that require temporary support to prevent collapse; or • Is carried out in or near a confined space; or • Is carried out in or near: (i) a shaft or trench with an excavated depth greater than 1.5 m; or (ii) a tunnel; or • Involves the use of explosives; or • Is carried out on or near pressurised gas distribution mains or piping; or • Is carried out on or near chemical, fuel or refrigerant lines; or • Is carried out on or near energised electrical installations or services; or

	• Is carried out in an area that may have a contaminated or flammable atmosphere; or • Involves tilt-up or precast concrete; or • 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 • Is carried out in an area at a workplace in which there is any movement of powered mobile plant; or • Is carried out in an area in which there are artificial extremes of temperature; or • Is carried out in or near water or other liquid that involves a risk of drowning; or • Involves diving work.
Principal Contractor	Means the Person that commissions a construction project becomes the Principal Contractor for the project unless: • They engage another PCBU as principal contractor for the project and authorises the person to have management or control of the workplace and to discharge the duties of principal contractor. **Note:** There can only be one Principal Contractor on a Project.
Reasonably Practicable	Means in relation to a duty to ensure health and safety, means that which is, or was at a particular time, reasonably able to be done in relation to ensuring health and safety, taking into account and weighing up all relevant matters including: (a) The likelihood of the hazard or the risk concerned occurring; and (b) The degree of harm that might result from the hazard or the risk; and (c) What the person concerned knows, or ought reasonably to know, about: (i) the hazard or the risk; and (ii) ways of eliminating or minimising the risk; and (d) The availability and suitability of ways to eliminate or minimise the risk; and (e) After assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk.
Safe Work Method Statement (SWMS)	Means a written document that sets out the high risk construction work activities in a logical sequence and identifies hazards and describes control measures to be put in place to control the risks. The aim of a SWMS is to: • Describe the activity or task to be undertaken; • Identify the resources, manpower and skills associated

	with the task; • Assess and select control measures (as appropriate); and, • Systematically plan the activity so it can be completed efficiently and effectively.
Shall	Mandatory requirement
Should	Advisory requirement
Structure	Means anything that is constructed, whether fixed or moveable, temporary or permanent. A structure includes: • Buildings, masts, towers, framework, pipelines, transport infrastructure and underground works (shafts or tunnels), for example noise reduction barriers on a freeway, communications masts or towers, electricity transmission towers and associated cables, flying cables and supports, guyed towers such as a ski-lift tower • Any component of a structure • Part of a structure.
Work Health and Safety (WHS) Management Plan	Means a written plan that sets out the arrangements for managing some site health and safety matters to ensure the required processes are in place to manage the risks associated with a complex construction project. All construction projects costing $250,000 or more must have a written WHS management plan prepared by the principal contractor before work on the construction project commences.

5 References

- NT Work Health and Safety (National Uniform Legislation) Act Jan 2012
- NT Work Health and Safety (National Uniform Legislation) Regulations June 2013
- NT Worksafe, Code of Practice: Construction Work
- Safe Work Australia, Code of Practice: Demolition Work
- Safe Work Australia, Code of Practice: Excavation Work

6 Records

- All relevant records associated with the management of construction work hazards shall be saved in TRIM including:
  - ➢ Design modification to, and specifications for, plant and work processes associated with construction work;
  - ➢ Associated construction drawings, specifications etc.
  - ➢ Contracts/tender documentation etc.
- Contractor high risk licences shall be uploaded into the Rapid Induct system
- Employee training records shall be saved in the training management System
- Authorisations shall be recorded in the authorisation database

- Completed JSEA's shall be referenced to the associated job number and stored for a period of five years. It is at the discretion of each site coordinator as to if these records are stored electronically in TRIM or as a filed hard copy.
- Completed operational risk assessments and all other related records shall be saved in TRIM and stored for a period of 5 years.

7 General information – Construction Work

7.1 Construction work can be commercial, civil or housing construction and includes the following:

a) Any installation or testing carried out in connection with an activity referred to in the above definition

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 the definition.

h) An activity referred to in the above definition that is carried out on, under or near water, including work on buoys and obstructions to navigation.

7.2 Construction work <u>does not include</u> any of the following:

a) The manufacture of plant

b) The prefabrication of elements, other than at a place specifically established for the construction work for use in the construction work

c) The construction or assembly of a structure that, once constructed or assembled, is intended to be transported to another place

d) Testing, maintenance or repair work of a minor nature carried out in connection with a structure

e) Mining or the exploration for or extraction of minerals.

7.3 Construction Work WHS Regulations do not apply to plant unless:

a) The plant is:

- A ship or submarine
- A pipe or pipeline
- An underground tank
- Designed or used to provide support, access or containment during work in connection with construction work, for example fall prevention devices, work position systems, formwork, personnel or material hoists where these are used in connection with construction work.

b) Work on the plant relates to work that is carried out in connection with construction work

c) The plant is fixed plant on which outage work or overhaul work that involves or may involve, work being carried out by five or more persons conducting businesses or undertakings at any point in time.

8 Construction work duties

8.1 All persons involved in construction work activities have health and safety duties associated with the carrying out of the work

8.2 The primary duty under the WHS Act requires a person conducting a business or undertaking (PCBU) to ensure so far as reasonable practicable, that workers and other persons are not exposed to health and safety risks arising form that business or undertaking.

8.3 The complexity of construction work means that there are often multiple duty holders. There are specific duties relating to construction work which applies to:

- Designers of the building or structure
- The persons conducting a business or undertaking who commissions construction work
- The Principal Contractor
- The persons who have management or control of a workplace at which construction work is carried out
- Persons conducting a business or undertaking that includes the carrying out of high risk construction work
- Officers e.g. company directors
- Workers
- Other persons e.g. visitors

8.4 The WHS Act requires all duty holders to consult, cooperate and coordinate activities so far as reasonably practicable to ensure that they each fulfil their obligations under the WHS Act and Regulations.

9 Specific Duties

9.1 Designers

9.1.1 The NT Work Health and Safety (NUL) Act defines a designer as a *person conducting a business or undertaking* that designs a structure that is to be used, or could reasonably be expected to be used at a workplace.

9.1.2 A builder could also be considered to be a designer if they are involved in altering the design for a building, even after construction work has commenced.

9.1.3 Section 22 of the NT WHS (NUL) Act requires a designer to:

- So far as is *reasonably practicable*, ensure that the structure is designed to be without risks to the health and safety of persons who:
  - At a workplace, use the structure for a purpose for which it was designed;
  - Construct the structure at a workplace;
  - Carry out any reasonably foreseeable activity at the workplace in relation to the manufacture, assembly or use of the structure for a purpose for which it was designed or the proper demolition or disposal of the structure;
  - Are at or in the vicinity of a workplace and who are exposed to the structure at the workplace or whose health may be affected by its use or activity.
- Carry out, or arrange for the carrying out of, any calculations, analysis, testing or examination that may be necessary for the performance of their duties.
- Give adequate information to each person who is provided with the design for the purpose of giving effect to it concerning:
  - Each purpose for which the structure was designed;

- The results of any calculations, analysis, testing or examination;
- Any conditions necessary to ensure that the structure is without risks to health and safety when used for a purpose for which it was designed or;
- When any carrying out any activity referred to above.

9.1.4 Regulation 295 of the NT WHS (NUL) Regulations require a designer of a structure or any part of a structure that is to be constructed to give the *person conducting a business or undertaking* who commissioned the design a written report that specifies the hazards relating to the design of the structure that, so far as the designer is reasonably aware:

- Create a risk to the health or safety of persons who are to carry out any construction work on the structure or plant; and,
- Are associated only with the particular design and not with other designs of the same type of structure.

9.2 *Persons Conducting a Business or Undertaking* who Commissions Construction Work

9.2.1 Under Regulation 293 of the NT WHS (NUL) Regulations, the *person conducting a business or undertaking* who commissions *construction work* will usually be the principal contractor and is often referred to as “the client”.

9.2.2 While there may be persons who represent the person who commissions the *construction work* or a *construction project* and coordinate the commissioning, for example project managers, construction managers, architects or engineers, the person who actually commissions the work will remain the duty holder.

9.2.3 Regulation 294 of the NT WHS (NUL) *Regulations require a person conducting a business or undertaking* who commissions *construction work* in relation to a structure to:

- Consult, *so far as is reasonably practicable*, with the designer of the whole or any part of the structure about how to ensure that risks to health and safety arising from the design during the *construction work* are eliminated so far as is *reasonably practicable*, or if it is not *reasonably practicable* to eliminate the risks, minimised so far as is *reasonably practicable*:
  - Such consultation must include giving the designer any information that the person has in relation to the hazards and risks at the workplace where the *construction work* is to be carried out.
- Take all reasonable steps to obtain a copy of the designer‘s safety report if they did not themselves commission the design of the construction project (Regulation 295).
- If they engage another person as principal contractor, give the principal contractor any information they have in relation to hazards and risks at or in the vicinity of the workplace where the construction work is to be carried out. (Regulation 296)

9.3 Principal Contractor

9.3.1 Regulation 293 Under the NT WHS (NUL) Regulations, the *person conducting a business or undertaking* that commissions a *construction project* is the principal contractor, unless the person appoints another *person conducting a business or undertaking* to be the principal contractor and authorise such person to have *management or control of the workplace* and discharge the duties of the principal contractor.

9.3.2 A principal contractor can be a sole proprietor of a business or undertaking (for example an owner-builder), a company or a partnership. In the case of a company, the company has the duties of the principal contractor rather than the individual managers who are employed by the company. In the case of a partnership, each partner is responsible for the duties of the principal contractor.

9.3.3 A principal contractor must be appointed for every *construction project* (i.e. construction work valued at $250,000 or more) and there can only be one principal contractor for a *construction project* at any one time.

9.3.4 Regulations 307 to 315 of the NT WHS (NUL) Regulations require a principal contractor to carry out a number of specific duties in relation to:

- Appropriate signage for the construction project that:
  - Show the principal contractor's name and telephone contact numbers(including an out of hours telephone number); and
  - Show the location of the site office for the project if there is one; and
  - Are clearly visible from outside the workplace, or the work area of the workplace, where the construction project is being undertaken.
- The WHS management plan for the workplace
- Arrangements for ensuring compliance at the workplace with the requirements for general workplace management in Part 3.2 of the WHS Regulations
- Managing the following specific risks:
  - the storage, movement and disposal of construction materials and waste; and,
  - the storage of plant that is not in use; and,
  - traffic in the vicinity of the workplace that may be affected
  - Essential services.

9.4 Persons who have management or control of a Workplace at which Construction Work is carried out.

9.4.1 A person with management or control of a workplace at which construction work is carried out has obligations under the WHS Regulations in relation to:

- Ensuring, so far as is *reasonably practicable*, that the workplace is secured from unauthorised access, having regard to all relevant matters, including risks to health and safety arising from unauthorised access to the workplace, the likelihood of unauthorised access occurring and, to the extent to which it cannot be prevented, they must know how to isolate hazards within the workplace (Regulation 298);
- Obtaining essential services information when excavation work is to be carried out and providing it to any person engaged to carry out the excavation work. (Regulation 304).

9.5 Persons Conducting a Business or Undertaking that includes the carrying out of *High Risk Construction Work*

9.5.1 Regulations 299 to 303 of the NT WHS (NUL) Regulations place obligations on persons conducting a business or undertaking that includes the carrying out of *high risk construction work* to:

- Ensure that a *safe work method statement (SWMS)* is prepared before the proposed work commences; and,
- Make arrangements to ensure that the *high risk construction work* is carried out in accordance with the *SWMS*; and
- Ensure that a copy of the *SWMS* is given to the principal contractor before the work commences; and,
- Ensure that a *SWMS* is reviewed and revised if necessary
- Keep a copy of the *SWMS* until the *high risk construction work* is completed.

9.6 Persons Conducting a Business or Undertaking

9.6.1 Apart from the specific duties outlined above, a person conducting a business or undertaking must:

- Manage risks to health and safety when excavation work is being carried out
- (Regulation 305); and,
- Comply with the requirements of the WHS Regulations regarding the excavation of trenches (Regulation 306); and,
- Comply with the requirements of the WHS Regulations in relation to general construction induction training. (Regulations 316 and 317).

9.7 Officers

9.7.1 Section 27 of the NT WHS (NUL) Act: Officers, for example company directors, have a duty under the WHS Act to exercise due diligence to ensure that the business or undertaking complies with its duties and obligations under the WHS Act and Regulations. This includes taking reasonable steps to ensure that the business or undertaking has and uses appropriate resources and processes to eliminate or minimise risks that arise from the construction work.

9.8 Workers

9.8.1 Under Section 28 of the NT WHS (NUL) Act, Workers have a general duty to take reasonable care for their own health and safety and they must not adversely affect the health and safety of other persons. Workers must comply with any reasonable instruction and cooperate with any reasonable policy or procedure relating to health and safety at the workplace.

9.8.2 Under Regulation 326 of the NT WHS (NUL) Regulations, Workers have specific obligations to keep their general construction induction training card available for inspection. If the worker is awaiting a decision on their application for a general construction induction training card, the worker must keep their general induction training certification available for inspection.

9.9 Other Persons

9.9.1 Section 29 of the NT WHS (NUL) Act requires other persons who are present at the workplace, for example visitors to construction sites, to take reasonable care for their own health and safety. They must also take reasonable care that their acts or omissions do not adversely affect the health and safety of other persons and comply, so far as is *reasonably practicable*, with any reasonable instruction given to them by the person conducting the business or undertaking.

10 Consultation

Consultation is a legal requirement and an essential part of managing health and safety when carrying out construction work.

A safe workplace is more easily achieved when everyone involved in the work communicates with each other to identify hazards and risks, talks about any health and safety concerns and works together to find solutions.

This includes cooperation between the people who manage or control the work and those who carry out the work or who are affected by the work.

10.1 Consulting, Cooperating and Coordinating activities with other Duty Holders

10.1.1 Section 46 of the NT WHS (NUL) Act requires that you consult, cooperate and coordinate activities with all other persons who have a work health or safety duty in relation to the same matter, so far as is *reasonably practicable*.

10.1.2 At a construction site, work activities are often likely to overlap and interact which means that the duty holders will each have a duty to protect the health and safety of persons on the site.

10.1.3 Consulting, cooperating and coordinating activities with other contractors on the site will assist each duty holder understand how their activities may impact on health and safety and ensure that the actions they each take to control risks are complimentary.

10.1.4 Principal contractors for a construction project, as persons who manage or control the workplace, have specific duties under the WHS Regulations to have arrangements in place for consultation, cooperation and the coordination of activities between any persons conducting a business or undertaking at the site. These arrangements must be detailed in the WHS management plan that is prepared by the principal contractor for the construction project.

10.2 Consulting with Workers

10.2.1 Section 47 of the NT WHS (NUL) Act requires that you consult, so far as is *reasonably practicable*, with workers who carry out work for you who are (or are likely to be) directly affected by a work health and safety matter.

10.2.2 If the workers are represented by a health and safety representative, the consultation must involve that representative.

10.2.3 The broad definition of a 'worker' under the NT WHS (NUL) Act means that you must consult with your employees plus anyone else who carries out work for your business or undertaking. You must consult, so far as is *reasonably practicable*, with your contractors and subcontractors and their workers who are directly affected by a health and safety matter.

10.2.4 In many cases, decisions about construction work and projects are made prior to engaging workers, therefore, it may not be possible to consult with workers in these early stages. However, it is important to consult with them as the construction work or project progresses.

10.3 How Consultation Occurs

10.3.1 Consultation can occur through:

- General or workplace induction processes, for example, when specialist skills arrive on site
- Toolbox talks
- Participative risk assessment processes
- Informing contractors and requesting information to be passed down to the contractor's workers
- Phone, email or fax
- One-off sessions or events called for a specific purpose.

10.4 Toolbox Talks

10.4.1 Toolbox talks can be used to provide information to and receive feedback from workers as well as assist in raising the awareness of how construction work can be carried out in a safe and healthy manner.

10.4.2 At a toolbox talk, the person conducting a business or undertaking can provide updates on any upcoming programming issues which may have an effect on health and safety, for example:

- New high risk construction activities
- New tower crane being erected
- Dual or specialised crane lifting
- Changes in access to and around site
- Changes which may affect members of the public.

10.4.3 When using toolbox talks it is good practice to:

- Keep a written record of the topic covered, attendees and any feedback received
- Organise a program of toolbox talks to ensure workers are given sufficient opportunity to provide input into how risks should be controlled

- Monitor the effectiveness of toolbox talks through safety outcomes (for example, control measures implemented and near misses).

10.5 Noticeboards

10.5.1 At the entry of a construction workplace or a particular area within the workplace, you may display information such as:

- A copy of any SWMS;
- The top five risks that have been identified and they can be controlled;
- Health and safety messages.

10.6 Further Information

Further guidance on consultation is available in the NT Approved Code of Practice: Work Health and Safety Consultation, Co-operation and Co-ordination and the NT WorkSafe guide: Worker Representation and Participation Guide.

11 Managing Risks Associated with Construction Work

11.1 Managing Risks

11.1.1 Under Regulations 32 to 38 of the NT WHS (NUL) Regulations, in order to manage risk, a duty holder must:

a) Identify reasonably foreseeable hazards that could give rise to the risk

b) Eliminate the risk so far as is *reasonably practicable*

c) If it is not *reasonably practicable* to eliminate the risk – minimise the risk so far as is *reasonably practicable* by implementing control measures

d) Maintain the control measure so that it remains effective

e) Review, and if necessary revise, control measures so as to maintain, so far as is *reasonably practicable*, a work environment that is without risks to health and safety.

11.1.2 Regulation 315 of the NT WHS (NUL) Regulations require a principal contractor for a construction project to manage risks, in accordance with Regulations 32-38 of the NT WHS (NUL) Regulations, associated with the following:

- Storage, movement and disposal of construction materials and waste at the workplace;
- The storage at the workplace of plant that is not in use;
- Traffic in the vicinity of the workplace that may be affected by construction work carried out in connection with the construction project;
- Essential services at the workplace.

11.1.3 The WHS Regulations also require risks to be managed in relation to hazardous manual tasks, noise, falls, confined spaces, plant, hazardous chemicals, asbestos and lead.

11.1.4 Further information on the general risk management process is available in the NT Approved Code of Practice: How to Manage Work Health and Safety Risks.

11.2 Identifying Hazards

11.2.1 At a Construction Workplace, hazards may arise from:

- The construction workplace itself, including its location, layout, condition and accessibility;
- Any design relating to the construction work;

- The use of ladders, incorrectly erected equipment, unguarded holes, penetrations and voids, unguarded excavations trenches, shafts and lift wells, unstable structures such as incomplete scaffolding or mobile platforms, fragile and brittle surfaces such as cement sheet roofs, fibreglass roofs, skylights, unprotected formwork decks;
- Falling objects, for example, tools, debris, equipment;
- Collapse of trenches;
- Structural collapse;
- Hazardous chemicals, including the handling, use, storage, and transport or disposal of hazardous chemicals;
- The presence of asbestos and asbestos containing materials;
- Welding fumes, gases and arcs;
- Traffic management system that control traffic access both within the construction workplace and where there are public roads, road verges, road medians, footpaths and bicycle paths;
- Systems of work;
- Hazardous atmospheres including ignition sources;
- Storage of flammable and combustible substances, such as paints, solvents, grease, oils, fuels, glues and sealants;
- Plant, including the transport, installation, erection, commissioning, use, repair, maintenance, dismantling, storage or disposal of plant;
- Hazardous manual tasks such as lifting, pushing, pulling and stretching causing injuries such as back injuries, sprains, strains and occupational overuse injuries;
- The interface with other works or trade activities;
- The physical working environment, for example, the potential for electric shock, immersion or engulfment, fire or explosion, slips, trips and falls, people being struck by moving plant, exposure to noise, heat, cold, vibration, radiation, static electricity or a contaminated atmosphere, and the presence of a confined space.

11.2.2 A person conducting a business or undertaking should also ensure there are effective procedures to identify hazards and consider the need to record these hazards in the following events:

- Before and during the installation, erection, commissioning or alteration of plant;
- Before changes to systems of work are introduced or a significant change to the construction workplace, or a part of it, is implemented;
- Before hazardous chemicals are introduced when new or additional work safety and health information becomes available, for example, an endorsed model code of practice, guidance material produced by Safe Work Australia or a work health and safety regulator, industry codes of practice or information from manufacturers, suppliers or designers.

11.3 Assessing The Risks

11.3.1 Assessing the associated risks will assist in determining:

- How severe a risk is;
- Whether any existing control measures are effective;
- What action should be taken to control the risk;
- How urgently the action needs to be taken.

11.3.2 Assessing the Risk includes considering things like:

- The severity of any injury or illness that could occur, for example is it a small isolated hazard that could result in a very minor injury or is it a significant hazard that could have wide ranging and severe affects; and,
- The likelihood or chance that someone will suffer an illness or injury, for example, consider the number of people exposed to the hazard.

11.3.3 A Risk Assessment is not necessary if the risk and how to control it is already known.

11.4 Controlling the Risks

11.4.1 The ways of controlling risks are ranked from the highest level of protection and reliability to the lowest. This ranking is known as the hierarchy of control measures. The duty holder must always aim to eliminate a hazard first. If this is not *reasonably practicable*, the risk must be minimised by using one or more of the following:

- Substitution
- Isolation
- Implementing engineering controls.

11.4.2 If a risk then remains, it must be minimised by implementing administrative controls, so far as is *reasonably practicable*. Any remaining risk must be minimised with suitable personal protective equipment (PPE).

11.4.3 Administrative control measures and PPE rely on human behaviour and supervision and when used on their own, tend to be least effective in minimising risks.

11.5 Maintenance and Review of Control Measures

11.5.1 Implemented control measures must be maintained to ensure they are fit for purpose, suitable for the nature and duration of the work and are installed, set up and used correctly.

11.5.2 Control measures must also be reviewed and as necessary revised, to maintain so far as is reasonably practicable, a work environment that is without risks to health and safety.

11.5.3 A review should occur on a regular basis and can be done by using the same methods as the initial hazard identification process.

11.5.4 Common methods include workplace inspection, consultation, testing and analysing records and data.

11.5.5 Reviewing the control measures also involves considering whether a higher order control measure is now reasonably practicable.

11.5.6 Control measures must be reviewed (and revised if necessary) in the following circumstances:

- The control measure does not control the risk it was implemented to control so far as is reasonably practicable;
- Before a change at the workplace that may create new or different risks that the control measure cannot effectively control;
- A new relevant hazard or risk is identified;
- The results of consultation by the duty holder under the NT WHS (NUL) Act and Regulations indicate that a review is necessary;
- A health and safety representative requests a review if that person reasonably believes that:
  - A circumstance in any of the above points affects or may affect the group represented by the health and safety representative;
  - The duty holder has not adequately reviewed the control measure in response to the circumstance.

11.6 Further Information on Assessing Risks

11.6.1 Further information on the general risk management process is available in the *NT Approved Code of Practice: How to Manage Work Health and Safety Risks.*

12 Safe Work Method Statements (SWMS)

Regulation 299 of the NT WHS (NUL) Regulations states that *High Risk Construction work* must not be carried out unless a safe work method statement (SWMS) is prepared.

12.1 What is a SWMS

12.1.1 The primary purpose of a SWMS is to enable supervisors, workers and any other persons at the workplace to understand the requirements that have been established to carry out the high risk construction work in a safe and healthy manner. It sets out the work activities in a logical sequence and identifies hazards and describes control measures.

12.1.2 Any activity, no matter how simple or complex can be broken down into a series of basic steps that will permit a systematic analysis of each part of the activity for hazards and potential accidents.

12.1.3 The description of the process should not be so broad that it leaves out activities with the potential to cause accidents and prevents proper identification of the hazards nor is it necessary to go into fine detail of the tasks.

12.2 The Aim of a SWMS

12.2.1 The aim of a SWMS is to:

- Describe the activity or task to be undertaken; and,
- Identify the resources, manpower and skills associated with the task; and,
- Assess and select control measures (as appropriate); and,
- Systematically plan the job the activity so it can be completed efficiently and effectively.

12.2.2 The SWMS must be able to be easily read by those who need to know what has been planned to manage the risks and implement the control measures and ensure the work is being carried out in accordance with the SWMS. Relevant persons include:

- The supervisor of the high risk construction work;
- The worker carrying out the high risk construction work;
- The principal contractor (if it is a construction project) or the person who has management and control over the high risk construction work.

12.3 Responsibility for Preparing a SWMS

12.3.1 A person conducting a business or undertaking that includes the carrying out of *high risk construction work* must ensure a SWMS is prepared or has already been prepared by another person before the proposed work commences**.**

12.3.2 A person conducting a business or undertaking (in consultation with workers who will be directly engaged in the *high risk construction work*) is best placed to prepare the SWMS because they understand the work being carried out and the workers undertaking the work and can ensure the SWMS is implemented, monitored and reviewed correctly.

12.4 Preparing a SWMS

12.4.1 When preparing a SWMS the following must be taken into account:

- The circumstance at the workplace that may affect the way in which the high risk construction work is carried out;
- On a construction project, the WHS management plan prepared by the principal contractor.

12.4.2 A SWMS Must:

- Identify the work that is high risk construction work;
- Specify hazards relating to the high risk construction work and risks to health and safety associated with those hazards;
- Describe the measures to be implemented to control the risks;
- Describe how the control measures are to be implemented, monitored and reviewed.

12.4.3 A SWMS should also include the following information:

- The person conducting a business or undertaking's name, address and ABN (if they have one)
- Details of the person(s) responsible for ensuring implementation, monitoring and compliance with the SWMS
- If the work is being carried out at a construction project:
  - The name of the principal contractor;
  - The address where the high risk construction work will be carried out;
  - The date the SWMS was prepared and the date it was provided to the principal contractor;
  - The review date (if any).

12.4.4 The content of a SWMS should provide clear direction on the control measures to be implemented. There should be no statements that require a decision to be made by supervisors or workers. For example, the statement, 'use appropriate PPE' does not detail the control measures. The control measures should be clearly specified.

12.4.5 Workers and their health and safety representatives should be consulted in the preparation of the SWMS. If there are no workers engaged at the planning stage, consultation should occur with workers when the SWMS is first made available to workers for example, during general construction induction training, or when it is reviewed such as during workplace-specific training or a toolbox talk.

12.5 Implementing a SWMS

12.5.1 Complying with a SWMS

- All persons conducting a business or undertaking who are involved in *high risk construction work* must develop and implement arrangements to ensure the work is carried out in accordance with the SWMS. Arrangements may include a system of routine or random workplace inspections.
- For example, asking workers and supervisors a few questions about the control measures used in the SWMS to see if they understand what has to be done.
- If the work is not being carried out in accordance with the SWMS, then the work must stop immediately or as soon as it is safe to do so. Work must not resume until the work can be carried out in accordance with the SWMS.
- If work is stopped, the work and the SWMS should be reviewed to identify noncompliance and ensure that either the method in the SWMS is the most practical and safest way of doing the task. If another method is identified as being a safer option, the SWMS should be revised to take into account this change prior to work re-commencing.
- If the *high risk construction work* is being carried out in connection with a construction project, a person conducting a business or undertaking must not commence *high risk construction work* unless the principal contractor has been provided a copy of the SWMS.

12.6 Providing Information and Instruction

12.6.1 A person conducting a business or undertaking must ensure that all workers who will be involved in *high risk construction work* are provided with information and instruction so they:

- Understand the hazards and the risks arising from the work;
- Understand and implement the risk controls in a SWMS;
- Know what to do if the work is not being conducted in accordance with the SWMS.

12.7 Keeping the SWMS

12.7.1 The SWMS must be kept and be available for inspection until at least the *high risk construction work* is completed. Where a SWMS is revised, all versions should be kept.

12.7.2 The SWMS may be kept at the workplace where the *high risk construction work* will be carried out. If this is not possible, then the SWMS should be kept at a location where it can be delivered to the workplace promptly.

12.7.3 If a notifiable incident occurs in relation to *high risk construction work* to which the SWMS relates, then the SWMS must be kept for at least 2 years from the occurrence of the notifiable incident. If the construction work at the workplace has ceased within that period then the person conducting a business or undertaking should keep the SWMS readily available for inspection.

12.8 Making the SWMS Available

12.8.1 A person conducting a business or undertaking must ensure the SWMS is available to any person engaged to carry out the high risk construction work; and,

12.8.2 For inspection under the WHS Act for the whole of the period for which it must be kept until the high risk construction work to which it relates is completed or for at least 2 years from the occurrence of the notifiable incident.

12.9 Reviewing a SWMS

12.9.1 A SWMS must be reviewed regularly to make sure it remains effective.

12.9.2 A SWMS must be reviewed (and revised if necessary) if relevant control measures are revised.

12.9.3 The review process should be carried out in consultation with workers (including contractors and subcontractors) who may be affected by the operation of the SWMS and their health and safety representatives who represented that work group at the workplace.

12.9.4 When a SWMS has been revised the person conducting a business or undertaking must ensure:

- All persons involved with the *high risk construction work* are advised that a revision has been made and how they can access the revised SWMS. For a construction project, the principal contractor should be given a copy of the revised SWMS
- All persons who will need to change a work procedure or system as a result of the review are advised of the changes in a way that will enable them to implement their duties consistently with the revised SWMS
- All workers that will be involved in the high risk construction work are provided with the relevant information and instruction that will assist them to understand and implement the revised SWMS.

13 WHS Management Plans for Construction Projects

- Regulation 309 of the NT WHS (NUL) Regulations states that all construction projects (i.e. construction work costing $250,000 or more) must have a written WHS management plan prepared by the principal contractor before work on the construction project commences.
- Regulation 308 of the NT WHS (NUL) Regulations states that for all construction projects, signs must be installed that:
  - Show the principal contractor‘s name and telephone contact numbers (including an out of hours telephone number);

- Show the location of the site office for the project if there is one;
- Are clearly visible from outside the workplace, or the work area of the workplace, where the construction project is being undertaken.

13.1 WHS Management Plans

13.1.1 A WHS management plan sets out the arrangements to manage work health and safety on a construction project. The intention of a WHS management plan is to ensure the risks associated with a complex construction project are managed, particularly where there can be many *contractors* and *subcontractors* involved and where the circumstances can change quickly from day-to-day.

13.1.2 The WHS management plan must be in writing and be easily understood by workers (including contractors and subcontractors). It may not be necessary to communicate the entire WHS management plan to all workers, however, all parts that are applicable to the work they are carrying out must be explained to them in full.

13.2 Preparing WHS Management Plans

13.2.1 The level of detail required for a WHS management plan will depend on how complex the workplace is (in particular the number of *contractors* at the workplace at any one time) and the risks involved in the work.

13.2.2 The WHS management plan prepared by the *principal contractor* must include:

- The names, positions and health and safety responsibilities of all persons at the workplace whose positions or roles involve specific health and safety responsibilities in connection with the construction project;
- The arrangements in place between any persons conducting a business or undertaking at the workplace for consultation, cooperation and coordination of activities in relation to compliance with their duties under the NT WHS (NUL) Act and its Regulations;
- The arrangements in place for managing any work health and safety incidents that occur;
- Any site-specific health and safety rules and the arrangements for ensuring that all persons at the workplace are informed of these rules;
- The arrangements to collect and assess, monitor and review SWMS.

13.2.3 The WHS management plan may also include the following information:

- Details of the person commissioning the *construction work*, for example, their name, ABN (if available) and address;
- Details of the *principal contractor*;
- Details of the *construction project*, for example, address of the workplace, anticipated start and end date and a brief description of the type of *construction work* that the WHS management plan will cover;
- Details on how *contractors* and *subcontractors* will be managed and monitored including how the *principal contractor* intends to implement and ensure compliance with the WHS management plan such as checking on the performance of *contractors* and *subcontractors* and how non-compliance will be handled;
- Details on how the risks associated with falls and falling objects and any high risk construction work that will take place on a construction project is managed.

13.2.4 The WHS Management Plan should also include information on:

- The provision and maintenance of a hazardous chemicals register, safety data sheets and hazardous chemicals storage;
- The safe use and storage of plant;

- The development of a construction project traffic management plan;
- Obtaining and providing essential services information;
- Workplace security and public safety;
- Ensuring the workers have appropriate livens and training to undertake the construction work.

13.3 People with WHS Responsibilities

13.3.1 Persons at the workplace whose positions or roles involve specific health and safety responsibilities must be identified in the WHS management plan. For example, people who should be listed include WHS managers, first aid officers and project managers.

13.3.2 Their responsibilities should be briefly described. Health and safety representatives do not need to be listed, unless they have a coordinating role separate to their role as a health and safety representative.

13.4 Consultation, Cooperation and Coordination

13.4.1 An important part of the WHS management plan involves the arrangements for consultation, cooperation and coordination of all persons conducting a business or undertaking at the workplace.

13.4.2 The WHS management plan must detail how the *principal contractor* will consult and cooperate with other duty holders.

13.4.3 There should be ongoing consultation and cooperation between all duty holders so that when work overlaps, each person is aware of other construction activities and they can control the hazards and risks created by this.

13.4.4 Examples of how the *principal contractor* may do this include:

- Hold pre-commencement WHS meetings with *contractors* and *subcontractors*;
- Schedule regular *contractor*/*subcontractor* WHS meetings;
- Hold toolbox WHS meetings;
- Establish a *construction project* WHS committee;
- Distribute a regular WHS newsletter;
- Consult with workers by phone, fax or email;
- Provide support, resourcing and training of health and safety representatives.

13.4.5 In many cases, persons who have responsibilities are not always at the workplace all the time. It is recommended that consultation arrangements for communicating with people off-site also be included in the WHS management plan.

13.4.6 The WHS management plan must detail the arrangements that the *principal contractor* will use to coordinate the *construction work* to ensure compliance. It must also include the process for developing, reviewing and distributing SWMS. This would also include providing training to workers.

13.5 Managing WHS Incidents

13.5.1 The *principal contractor* should think about the types of work health and safety incidents that might occur.

13.5.2 The WHS management plan should document the actions that will be taken and who will represent the principal contractor.

13.5.3 The following should be included (covering both the process involved and the person responsible for it):

Incident	• Arrangements to stabilise and evacuate any injured person after ensuring

Management	safety of rescuers; • Arrangements for isolating the incident scene; • Arrangements for making the workplace safe after the incident; • Arrangements for preserving the incident site; • Arrangements for notifying the principal contractor; • Notification of the relevant regulator and emergency services as necessary; • Arrangements for the investigation of an incident
Emergency Situations	• The emergency plan for the construction project; • Arrangements for testing of the emergency plan; • Arrangements for training and instruction requirements.
First Aid Arrangements	• The facilities and first aid equipment that will be provided by the principal contractor; • Arrangements for training in first aid; • First aid equipment that will be provided by contractors and subcontractors

13.5.4 The WHS management plan should also include arrangements for reporting and acting upon near misses that occur.

13.6 Site-Specific Safety Rules

13.6.1 The WHS management plan must detail any site-specific WHS rules, including any Territory Generation Site Specific rules, that the *principal contractor* requires persons to comply with and the arrangements for ensuring that all persons at the workplace are informed of these rules.

13.6.2 The rules should be simple and clear, and where appropriate, they should show who each rule applies to.

13.6.3 To determine the site-specific rules, consideration of the nature of the work, the hazards, the size and location of the workplace, and the number and composition of the workers and other persons at the workplace will need to occur.

13.6.4 When determining site specific rules, the *Territory Generation Representative(s) shall* be engaged and the appropriate Territory Generation WHS team member *shall* be present, or review the submitted documentation.

13.6.5 Prior to finalising the rules, the principal contractor should consult with everyone in the workplace to ensure they understand the rules.

13.7 SWMS

13.7.1 The WHS management plan must include details of the arrangements for the preparation, collection and any assessment/approval, monitoring and review of *SWMS* at the workplace.

13.7.2 The *principal contractor* may establish a process to ensure that the work being undertaken does not conflict with control measures being used by other *contractors or subcontractors* working in the same location or create additional risks for others.

13.7.3 The WHS management plan must also include arrangements to ensure that *SWMS* are followed by all affected workers (including *contractors* and *subcontractors*), and that work is ceased if the *SWMS* is not being followed.

14 Implementing the WHS Management Plan

14.1 Informing people about the WHS Management Plan

14.1.1 The principal contractor must:

- Ensure, so far as is *reasonably practicable*, that all persons who are to carry out *construction work* on the *construction project* are made aware of the content of the WHS management plan in respect to their work and their right to inspect the plan;
- Discuss with workers the parts of the WHS management plan that are relevant to the work they are carrying out.

14.2 SWMS

14.2.1 The *principal contractor* must take all reasonable steps to obtain copies of *SWMS* relating to *high risk construction work* before work on the *construction project* commences.

14.2.2 *Contractors* and *subcontractors* should be made aware of the responsibility to provide the *SWMS* to the *principal contractor* prior to commencing any *high risk construction work*.

14.3 Keeping the WHS Management Plan

14.3.1 A WHS management plan (including any revisions to it) must be kept until the construction project is finished.

14.3.2 If a notifiable incident occurs during the project then the WHS management plan will need to be available for at least 2 years from the occurrence of the notifiable incident.

14.3.3 If the *construction project* has ceased within that period then the *principal contractor should* keep the WHS management plan readily available for inspection.

14.4 Making the WHS Management Plan Available

14.4.1 The WHS management plan must be available to any person engaged to carry out the high risk construction work and for inspection under the WHS Act for the period until the construction project to which it relates is completed or for at least 2 years from the occurrence of the notifiable incident.

14.5 Reviewing and Revising WHS Management Plans

14.5.1 The *principal contractor* must review and, as necessary, revise the WHS management plan to ensure it remains up-to-date and relevant for the construction project.

14.5.2 Situations where a WHS management plan may be reviewed include:

- Changes of critical personnel, for example, project manager, site supervisor, site safety manager;
- If safety rules on site change;
- Changes in legislation, regulations or codes of practice;
- Where there are significant changes to site conditions that result in changes to persons with responsibility for health and safety or additional persons with responsibility for health and safety.

14.5.3 Where reasonably practicable, the review process should be undertaken in consultation with workers (including contractors and subcontractors) at the workplace.

14.5.4 Following the revision of a WHS management plan, if a process has changed, the principal contractor must ensure so far as is reasonably practicable, that each person carrying out construction work in connection with the construction project is made aware of any revisions to the WHS management plan.

14.5.5 This can be achieved by providing the revisions in writing to contractors and holding face-to-face discussions.

15 Information, Training, Instruction and Supervision.

- Section 19 of the NT WHS (NUL) Act requires a person conducting a business or undertaking to provide relevant information, training, instruction and supervision to protect all persons from risks to their health and safety arising from work carried out.

- Regulation 39 of the WHS (NUL) Regulations require that a person conducting a business or undertaking must ensure that information, training and instruction provided to a worker is suitable and adequate having regard to:
  - The nature of the work carried out by the worker;
  - The nature of the risks associated with the work at the time of the information, training and instruction;
  - The control measures implemented.
- The training provided must be readily understandable by any person to whom it is provided.
- Information that might be provided includes workplace health and safety arrangements and procedures, including for emergency evacuations. Information can be provided in various forms, including written formats or verbally, for example, during workplace specific training, pre-start meetings or toolbox talks.
- Often information and instruction are provided at the same time. In addition, supervisors will provide specific workplace instructions during the work, including for health and safety. Supervisors need to be aware of and provide the level of supervision necessary to ensure the health and safety of workers, including assessing workers competency to undertake the work.

15.1 General Construction Induction Training

15.1.1 Regulations 316 to 317(1) of the NT WHS (NUL) Regulations requires that if a worker has either not successfully completed general construction induction training or has successfully completed general construction induction training more than 2 years previously but has not carried out construction work in the preceding 2 years, a person conducting a business or undertaking must:

- Not direct or allow the worker to carry out construction work; and,
- Ensure that general construction induction training is provided to a worker engaged by the person who is carrying out construction work,

15.1.2 General construction induction training provides basic knowledge of *construction work*, the work health and safety laws that apply, common hazards likely to be encountered in *construction work*, and how the associated risks can be controlled.

15.1.3 General construction induction training must be delivered in the Northern Territory by a Registered Training Organisation (RTO) and cover the content set out in the specified VET course for general construction induction training. The training should include:

- The roles, responsibilities and rights of duty holders; and,
- Health and safety consultation and reporting processes; and,
- The principles of risk management; and,
- Common construction hazards and control measures; and,
- Safety information and documentation (for example, WHS management plans and SWMS).

15.2 General Construction Induction Training Cards

15.2.1 R.317(2) The WHS Regulations require that a person conducting a business or undertaking must ensure workers have successfully completed general construction induction training before starting construction work. Each construction worker must hold:

- A general construction induction training card; or,
- A general construction induction training certification that has been issued within the preceding 60 days if the worker has applied for but not yet been issued with a general construction induction training card.

15.2.2 Once a person has successfully completed general construction induction training, they may apply to the regulator for a general construction induction training card.

15.2.3 If a worker has applied for a general construction induction training card and has not been notified of the decision on the application within 60 days of submitting the application, the worker is taken to hold a general construction training card until a decision is made by the regulator. If the worker receives a cancellation notice, they must return the card as requested in the notice.

15.2.4 The NT WHS (NUL) Regulations recognise that a general construction induction card can be issued in different jurisdictions under their work health and safety legislation. Where a worker holds a card that is issued in a different jurisdiction to where the work is being carried out, then the card is recognised as being valid as long as it is used in accordance with the terms and conditions under which it was granted. However, this does not apply if the card has been suspended, cancelled or has expired.

15.2.5 Workers must keep their card available for inspection by an inspector. They will also need to provide their card to the person conducting a business or undertaking that engages them so they can be sure the worker has successfully completed the training.

15.3 Workplace Specific Training

15.3.1 Workplace specific training should be conducted by a person conducting a business or undertaking that has management or control at the workplace or by the *principal contractor* for the *construction project*.

15.3.2 All workers should attend workplace specific training so they can become aware of procedures, management and reporting arrangements as well as other issues that are relevant to a particular construction workplace.

15.3.3 Other persons who may visit the workplace may also require some workplace specific training.

15.3.4 Construction workplace specific training may cover the following:

- Safety documents, policies and plans, including the WHS management plan and SWMS;
- Supervisory, consultation and reporting arrangements;
- Workplace safety rules, including first aid provisions and emergency procedures;
- Workplace facilities, including their location, use and maintenance;
- Emergency procedures including after-hours emergency contacts;
- Health monitoring requirements and procedures;
- Access, egress and security;
- Workplace specific hazards and control measures;
- How safety issues are resolved, including health and safety representative arrangements;
- How to report hazards and unsafe work practices;
- How to report accidents, incidents and dangerous occurrences;
- What to do if a person is injured, including first aid provisions.

15.4 Supervision

15.4.1 Adequate supervision must be provided, taking into account where workers are unfamiliar with the site or the nature of the work**.**

15.4.2 Workers in a supervisory role (for example, leading hand or foreman) should be trained and authorised to ensure the work is carried out in accordance with relevant policies, procedures and the *SWMS*.

16 General Workplace Management.

Under Regulation 314 of the NT WHS (NUL) Regulations, the *principal contractor* must put in place arrangements for ensuring compliance with the WHS Regulations relating to the following:

- Providing a safe working environment;
- Providing and maintaining adequate and accessible facilities;
- Providing first aid;
- Emergency planning;
- Providing workers with PPE;
- Remote or isolated work;
- Managing risks associated with airborne contaminants;
- Managing risks associated with hazardous atmospheres including ignition sources;
- Storage of flammable and combustible substances;
- Managing risks associated with falling objects.

16.1 The Work Environment.

16.1.1 Regulation 40 of the NT WHS (NUL) Regulations require a person conducting a business or undertaking to, as far as is *reasonably practicable*, ensure that:

- The layout of the workplace allows, and is maintained to allow, persons to enter and exit the workplace and move within it safely, both under normal working conditions and in an emergency;
- Work areas have space for work to be carried out safely;
- Floors and other surfaces are designed, installed and maintained to allow work to be carried out safely;
- Lighting enables each worker to carry out work safely, persons to move around safely and safe evacuation in an emergency;
- Ventilation enables workers to carry out their work without risk to their health and safety;
- workers exposed to extremes of heat or cold are able to carry out work without risk to their health and safety; and,
- Work in relation to or near essential services (such as gas, electricity, water, sewerage and telecommunications) do not affect the health and safety of persons at the workplace.

16.1.2 An untidy workplace can cause injuries. Good housekeeping practices are essential to ensure a safe workplace. For example:

- The entry, exits and access ways in the workplace are kept clean and clear of materials and waste;
- A safe system implemented for collecting, storing and disposing of excess or waste materials by providing adequate rubbish bins and recycling bins;
- Enough area is allocated to safely store materials or plant for the construction work:
- Temporary electrical supply cables are positioned so as not to present tripping hazards (off the floor or away from access routes as far as is *reasonably practicable*);
- Materials are safely stacked, away from fences and hoardings and located to minimise re-handling and reduce transport distances;

- Combustible and flammables substances and other hazardous chemicals are safely store and clearly identify;
- Protruding objects such as exposed nails etc. are removed or covered.

16.1.3 For a *construction project*, *principal contractors* must also ensure, so far as is *reasonably practicable*, the storage, movement and disposal of construction materials and waste at the workplace are without risks to health and safety. This *should* be considered when preparing the WHS management plan.

16.2 Entry and Exit (Access and Egress)

16.2.1 A person conducting a business or undertaking must ensure the means of entry and exit to and from all areas of their workplace are safe. For example, providing separate entries and exits for mobile plant (including cranes or trucks) and pedestrians will reduce the risk of persons being hit by moving vehicles.

16.2.2 If persons and vehicles have to share a traffic route, use kerbs, barriers or clear markings to designate a safe walkway and have traffic management controls implemented.

16.2.3 Entry and exit areas and passageways should be clearly lit, signed and kept free from materials and debris to minimise the risk of trips and slips.

16.2.4 Emergency exit routes must be easily identifiable, kept free from obstruction and have emergency lighting, directional signs and exit points marked.

16.2.5 Emergency lighting back-up systems should have sufficient capacity to provide safe emergency egress for a reasonable period of time in the event of power failure.

16.2.6 Emergency lighting system should be tested regularly to ensure an evacuation could be safely carried out in both daylight and night time conditions.

16.3 Work Areas

16.3.1 Work areas need to be clearly identified and separated as necessary so that work can be undertaken safely.

16.3.2 A plan of the workplace may be prepared to indicate the location of different areas including loading zones, access and egress, materials storage, offices, first aid stations, waste and recycling areas.

16.3.3 Signs may be used to provide clear instructions to persons at the construction workplace, for example ‘No Entry‘, ‘No Smoking‘, ‘PPE required‘.

16.3.4 Vehicle, plant and pedestrian traffic in the workplace may be controlled through clear vehicle paths, allocated parking areas, signage, physical barriers and/or traffic controllers.

16.3.5 Where there is risk of falling objects, exclusion zones may need to be created to prevent unauthorised people entering the work area and being put at risk.

16.4 Floors and Surfaces

16.4.1 The type of work surfaces that are required at a workplace will depend on the different phases of construction and the type of work being carried out. *Construction work* surfaces will vary (for example, earth, steel, timber and concrete) and the risk of slips and trips must be appropriately controlled.

16.4.2 Dust, moisture and the materials from which the surface is constructed will also present hazards to workers and the placement of materials and equipment. Surfaces should be inspected regularly and maintained to eliminate or minimise slip and trip hazards.

16.5 Lighting

16.5.1 Adequate lighting must be provided to supplement low levels of natural light to ensure operations can be conducted safely. All rooms including storerooms and plant rooms must have adequate lighting to allow visual identification of any hazards present.

16.5.2 The level of illumination needs to match the demands of the job and the location. The following is a guide for minimum lighting level at the workplace:

- General access ways and base lighting to rooms, stairways – 40 LUX;
- General external and internal areas (not access ways) – 1-3 LUX;
- Typical building work (for example, bricklaying, plastering, gyprock, electrical) – 160 LUX.

16.5.3 Lighting installations should avoid the risks of electric shock, burns and glare. For example, high intensity lighting such as halogen and metal halide fittings should be installed at a sufficient height and angle so as to prevent glare and contact burns and have sufficient clearance from combustible elements so as not to create a fire hazard.

16.5.4 Lighting should be checked regularly to ensure it remains sufficient for the construction work or project as it progresses. Any defective globes, lamp guards and fittings should also be replaced or repaired promptly by a competent person.

16.6 Essential Services

16.6.1 Essential services include the supply of gas, water, sewerage, telecommunications, electricity, chemicals, fuel and refrigerant in pipes or lines.

16.6.2 The *principal contractor* for a construction project must manage the risks to health and safety associated with essential services at the workplace.

16.6.3 The NT WHS (NUL) Regulations define *construction work* that is carried out on or near pressurised gas distribution mains or piping, chemical, fuel or refrigerant lines and/or energised electrical installations as *high risk construction work* and a *SWMS* must be prepared before this work commences.

16.6.4 Before work commences, the *principal contractor* must find out what services are at or near the location where the work is to be done that could create a risk if contacted or damaged. Services may be underground or hidden in floor slabs and behind walls.

16.6.5 Underground essential services are essential services that use pipes, cables or other associated plant located underground.

16.6.6 Regulation 304 of the NT WHS (NUL) Regulations states that before commencing excavation work, a person with management or control of the workplace must take all reasonable steps to obtain current underground services information that relates to the workplace and areas adjacent to the workplace.

16.6.7 The person must provide this information to all persons carrying out the excavation work, ensure it is readily available for inspection under the NT WHS (NUL) Act until the excavation is completed or, if there is a notifiable incident relating to the excavation, 2 years after the incident occurs.

17 Facilities at a Construction Workplace

17.1 Regulation 41 of the NT WHS (NUL) Regulations require a person conducting a business or undertaking to ensure, so far as is *reasonably practicable*:

- The provision of adequate facilities for workers, including toilets, drinking water, washing facilities and eating facilities; and,
- The facilities are maintained in good working order and are clean, safe and accessible.

17.1.1 When providing facilities, all relevant matters must be considered including:

- The nature of the work being carried out at the workplace; and,
- The nature of the hazards at the workplace; and,
- The size, location and nature of the workplace; and,

- The number and composition of the workers at the workplace.

Affected workers must also be consulted when making decisions about the adequacy of facilities for the welfare of workers.

More information and guidance on workplace facilities is available in Chapter 3 of the NT Approved Code of Practice: *Managing the Work Environment and Facilities.*

17.2 First Aid

17.2.1 Regulation 42 of the NT WHS (NUL) Regulations require that a person conducting a business or undertaking at a workplace must ensure:

- The provision of first aid equipment for the workplace; and,
- That each worker at the workplace has access to the equipment; and,
- Access to facilities for the administration of first aid.

17.2.2 All workplaces must have first aid provisions in case of injury or illness. All construction workplaces must have access to a trained first aider.

17.2.3 First aid staff should be familiar with the specific conditions and hazards at the construction workplace and the types of injuries likely to occur.

17.2.4 The names of first aid officers, first aid procedures and emergency contact phone numbers should be part of the general construction induction training and displayed in prominent locations visible to all workers.

17.2.5 The *principal contractor* must put in place arrangements for ensuring compliance with the requirement to provide first aid at the *construction project* workplace. How the *principal contractor* intends to ensure compliance should be detailed in the WHS management plan.

17.2.6 When considering first aid provisions for a workplace, including the number of and training requirements for first aiders, the person conducting a business or undertaking and/or the *principal contractor*, should take into account the:

- The nature of the work and the workplace hazards; and,
- The size and location of the workplace; and,
- The number and occupations of the workers and other people.

17.2.7 A construction workplace where *high risk construction work* is undertaken should be considered to be a high risk workplace. In these circumstances, it may be appropriate to employ specific work health professionals or services.

Further guidance on how to provide First Aid is available in the NT Approved Code of Practice: *First Aid in the Workplace.*

18 Emergency Planning

18.1 Regulation 43 of the NT WHS (NUL) Regulations require that a person conducting a business or undertaking at a workplace must ensure that an emergency plan is prepared for the workplace.

18.1.1 All workplaces must have an emergency plan that has been specifically developed for the particular workplace and its specific hazards and cover a range of potential incidents.

18.1.2 All persons at the construction workplace must receive information, training and instruction about implementing the emergency plan.

18.1.3 A reliable and effective means of communication should be established between all work areas, and persons involved to permit and ensure effective evacuation of danger areas.

18.1.4 Rescue equipment for the prompt removal of an injured worker, as well as a communication system to contact any necessary emergency services, should be available and readily accessible at the workplace.

18.1.5 The emergency procedures in the emergency plan must clearly explain how to respond in various types of emergency, including how to evacuate people from the workplace in a controlled manner.

18.1.6 Contact numbers for emergency services should be prominently displayed. A register of all persons who are at the construction workplace on a particular day should be kept so that in the case of any emergency everyone can be accounted for.

18.1.7 Emergency procedures must include:

- an effective response to an emergency; and,
- Evacuation procedures; and,
- Notifying emergency service organisations at the earliest opportunity; and,
- Medical treatment and assistance; and,
- Effective communication between the person authorised by the person conducting the business or undertaking to coordinate the emergency response and all persons at the workplace.

18.1.8 The evacuation procedures should be displayed in appropriate location(s) at the construction workplace. The emergency plan and evacuation procedures must be tested on a regular basis.

19 Personal Protective Equipment

19.1 Regulation 44 of the NT WHS (NUL) Regulations requires that where PPE is to be used to minimise a risk to health and safety, the person conducting a business or undertaking who directs the carrying out of work must provide the PPE to workers at the workplace, unless the PPE has been provided by another person conducting a business or undertaking.

19.2 Regulation 46 of the NT WHS (NUL) Regulations require that the worker must, so far as the worker is reasonably able, use or wear the equipment in accordance with any information, training or reasonable instruction by the person conducting the business or undertaking.

19.3 PPE is one of the least effective ways of controlling risks to health and safety and should only be used:

- When there are no other practical control measures available (as a last resort); or,
- As an interim measure until a more effective way of controlling the risk can be used; or,
- To supplement higher level control measures (as a back-up).

19.4 A worker who is provided with PPE by their PCBU must:

- Use or wear the equipment in accordance with any information, training or reasonable instruction provided by the PCBU, so far as they are reasonably able; and,
- Not intentionally misuse or damage the equipment; and,
- Must advise the PCBU of any damage to, defect in or need to clean or decontaminate any of the equipment they are aware of.

19.5 If the PPE is uncomfortable or does not fit properly, the worker should consult with their manager.

19.6 PPE used at a workplace must be:

- Selected to minimise risk to health and safety; and,
- Suitable for the nature of the work and any hazard associated with the work; and,
- A suitable size and fit and reasonably comfortable for the person wearing it; and,
- Maintained, repaired or replaced so it continues to minimise the risk including ensuring the equipment is clean, hygienic and in good working order.

19.7 Personal Protective Equipment selection processes must also include consultation with users and their representatives.

19.8 Other persons including visitors to the workplace should also be provided with PPE (for example, hard hats, gloves, ear protection, high visibility clothing and respiratory protection) to wear when they are at the construction workplace to protect them from health and safety risks. They must wear the PPE in accordance with any information, training and instruction provided to them by the person conducting a business or undertaking at the workplace.

20 Falling Objects

20.1 Regulation 54 of the NT WHS (NUL) Regulations states that a person conducting a business or undertaking must manage risks to health and safety associated with an object falling on a person if the falling object is reasonably likely to injure the person.

20.1.1 This requires that a safe system of work be provided and maintained, including:

- Preventing an object from falling freely, so far as is *reasonably practicable*; and,
- If fall prevent is not reasonably practicable to prevent an object from falling freely – providing, so far is reasonably practicable, a system to arrest the fall of a falling object.

20.1.2 Falling objects can pose a significant risk and cause serious injuries to workers at construction workplaces or members of the public if control measures are not implemented to eliminate or minimise the associated risks. For example, a person could receive fatal head injuries if building materials are not secured or prevented from falling.

20.1.3 Control measures which can be implemented to managing the risk of falling objects when undertaking construction work include:

- Securing and properly bracing structures;
- Securing loose material such as ply wood, iron-sheets and off-cuts against the wind;
- Using chutes when placing debris into a skip below the work area;
- Erecting perimeter containment screens;
- Not stacking materials close to un-meshed guardrails and perimeter edges;
- Enclosing areas over which loads are being lifted;
- Using toe boards on edge protection;
- Using tool lanyards;
- Erecting catch platforms and/or nets;
- Using a gantry where work involving multiple levels is being performed that is beside a footpath;
- Closure of the adjoining area to form an exclusion zone;
- Establishing traffic management devices including road diversions or traffic detours;
- Using a spotter on the ground level when loads are being lifted to higher levels;
- Using traffic controllers to direct pedestrians or other traffic;
- Working outside normal hours;
- Using PPE such as hard hats.

20.1.4 When considering control measures to contain or catch falling objects, identify the types of objects that could fall, as well as the fall gradient and distance, to ensure that any protective equipment or structure is strong enough to withstand the impact forces of the falling object. Examples of these control measures include:

- Erecting a covered, pedestrian walkway; or,
- Erecting a catch platform with vertical sheeting or perimeter screening; or,
- Providing overhead protective structures on mobile plant.