WHS-13 Manual Handling Procedure

Table of Contents

Document Control	
Territory Generation document number:	WHS-13
BDOC No:	BDOC2014/244
Document release date:	Date 19/05/2014 – Version 1.0
Review period:	3 Years
Next review date:	September 2017
Document Owner:	WHS Specialist
Document Sponsor:	Chief Executive Officer

Document History

Version No:	Date Released	Change	Remarks
1.0	19/05/2014	n/a	Procedure approved and released
1.0	12/09/2014	Rebranding	Rebranding and recoding

1 Purpose

The purpose of this procedure is to outline the requirements for identifying and managing manual handling tasks in order to control the risks of workers being affected by musculoskeletal disorders.

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

Job Safety Environmental Analysis (JSEA)	Means the process used to break a task into steps; identify the potential hazards and control measures; and implement these so that the task can be completed safely. This process is conducted at the task level by the persons carrying out the work and is also known as a task based risk assessment.
Hazard	Means any thing or condition which has the potential to cause injury or harm to health
Risk	Means the likelihood that death, injury or illness may occur because of the hazard
Risk management	Means the process of identifying, assessing, treating, monitoring, reviewing and communicating risks.
Manual handling	Means any activity that requires using the body to lift, lower, push, pull, carry or otherwise move, hold or restrain an animate or inanimate object.
Manual task	Means the use of manual handling as defined above to conduct any work activity e.g. stacking shelves, lifting boxes, moving equipment etc.
Hazardous manual task	Means a task that requires a person to lift, lower, push, pull, carry or otherwise move, hold or restrain an animate or inanimate object involving one or more of the following: • Repetitive or sustained force • High or sudden force • Repetitive movement • Sustained or awkward posture • Exposure to vibration. The above factors can directly stress the body and lead to injury.
Musculoskeletal disorder (MSD)	Means an injury to, or a disease or, the musculoskeletal system, whether occurring suddenly or over time. It does not include an injury caused by crushing, entrapment (such as fractures or dislocations) or cutting resulting from the mechanical operation of plant.
Shall	Mandatory requirement
Should	Advisory requirement

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 *Hazardous Manual Tasks* Jan 2012
- G-WHS-11 Territory Generation Job Safety Environmental Analysis (JSEA) Work Instruction
- G-WHS-30 Territory Generation Operational Risk assessment Template

6 Records

6.1 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.

6.2 Completed Operational Risk Assessments shall be saved in TRIM

6.3 Incidents involving manual handling shall be entered into the GRACE event reporting system.

6.4 Training records for employees shall be retained in the Training Management System

7 General information

7.1 Some manual handling tasks are hazardous and may cause musculoskeletal disorders (MSD)

7.2 Musculoskeletal disorders may include conditions such as:

a) Sprains and strains of muscles, ligaments and tendons

b) Back injuries, including damage to the muscles, tendon, ligaments, spinal discs, nerves, joints and bones

c) Joint and bone injuries or deformities including injuries to the shoulder, elbow, wrist, hip, knee, ankle, hands and feet

d) Nerve injuries or compression e.g. carpal tunnel syndrome

e) Muscular and vascular disorders as a result of hand-arm vibration

f) Soft tissue hernias

g) Chronic pain.

7.3 Musculoskeletal disorders occur in two ways:

a) Gradual wear and tear to joints, ligaments, muscles and inter-vertebral discs caused by repeated or continuous use of the same body parts, including static body positions

b) Sudden damage caused by strenuous activity, or unexpected movements such as when loads are being handled move or change position suddenly

7.4 Injuries can also occur due to a combination of the above two mechanisms.

7.5 Hazardous manual tasks directly stress the body and can lead to injury

7.6 The risks to health and safety relating to a musculoskeletal disorder associated with hazardous manual tasks must be managed

7.7 The management of hazardous manual tasks shall include a systematic process of:

a) Identifying hazardous manual tasks

b) Assessing the risks of musculoskeletal disorders associated with the task

c) Implementing appropriate risk control measures

d) Reviewing the effectiveness of control measures.

7.8 Workers and Health and Safety Representatives shall be consulted, so far as reasonably practicable in relation to the above management process.

7.9 Workers shall report issues with manual handling tasks and signs of discomfort immediately to their Line Manager/Supervisor.

7.10 All incidents including near misses, associated with manual handling tasks shall be reported into the GRACE system.

7.11 During procurement processes consideration shall be given to the safe design of plant and equipment in order to reduce the risk of exposure to hazardous manual tasks.

7.12 Equipment and/or PPE used for manual handling tasks shall be properly maintained in accordance with the manufacturer's instructions.

8 Risk factors of hazardous manual tasks

Force is the amount of muscular effort required to perform a movement or task, forceful muscular exertions overload muscles, tendons, joints and discs and are associated with most musculoskeletal disorders.	
a) REPETITIVE FORCE Using force repeatedly over a period of time to move or support an object	Examples: • Lifting and stacking goods • Repetitively pressing components with the thumbs or other part of the hand to assemble an item
b) SUSTAINED FORCE Occurs when force is applied continually over a period of time	Examples: • Pushing or pulling trolleys • Holding down a trigger to operate a power tool • Carrying objects over long distances
c) HIGH FORCE May be exerted by the back, arm or leg muscles or by the hands and fingers. Includes any task that: - A worker describes as very demanding physically - A worker needs held to do because of the effort required - Requires a stronger person to do or two persons to do the task	Examples: • Using a solid grip to handle large or heavy loads • Operating hand tools with tight squeeze grips
d) SUDDEN FORCE	Examples:

	Jerky or unexpected movements while handling an item or load where the body must suddenly adapt to changing force	• Impact recoil of pressure tools • Carrying an unbalanced or unstable load
e)	REPETITIVE MOVEMENT Using the same parts of the body to repeat similar movements over a period of time	Examples: • Typing and other keyboard tasks • Using a socket and ratchet or spanner to unscrew long bolts
f)	SUSTAINED POSTURE Where part of or the whole body is kept in the same position for a prolonged period	Examples: • Supporting an item while it is being fixed into place • Continually standing in the one position when operating equipment
g)	AWKWARD POSTURE Where any part of the body is in an uncomfortable or unnatural position such as: - Postures that are unbalanced or asymmetrical - Postures that require extreme joint angles or bending and twisting	Examples: • Squatting, bending or twisting while servicing plant • Working with arms overhead • Using a hand tool the causes the wrist to be bent to the side
h)	VIBRATION – whole body When vibration is transmitted through the whole body usually via a supporting surface	Examples: • Operating mobile plant • Driving a vehicle over rough terrain
i)	VIBRATION – Hand-arm When vibration is transferred through a vibrating tool, steering wheel or controls in heavy machinery to the hand and arm.	Examples: • Using impact wrenches, chainsaws, jackhammers, grinders, drills or vibrating compacting plates
j)	Task Duration Tasks that continue over a long period or are repeated over the work day increase the risk of injury	Examples: • Long duration means a task is done for more than a total of two hours over a whole shift or continuously for more than 30 mins at a time

9 Sources of risk

9.1 The main sources of risk associated with manual handling tasks are:

a) Work area design and layout	Consider: • Work benches, conveyors, furniture and fittings and the equipment used by workers doing the job • The positioning and relationship between the different elements in the work area to each other and to the worker
b) The nature, size, weight or number of things handled in performing the manual task	Consider: • Size and weight of the load • Ability to grip the load • Load stability • Tooling suitable for the task including weight, balance, design, usage and maintenance
c) Systems of work	Consider: • The way work is organised • Time constraints • Pace and flow of work • Resources and guidance • Consultation processes • Staffing levels, skill mix and shift arrangements
d) The environment in which the manual task is being performed.	Consider: • Cold environments • Hot environments • Humid environments • Wind • Slippery or uneven floor surfaces • Obstructions • Lighting

10 Risk assessment

10.1 A task based risk assessment process (Job Safety Environmental Analysis (JSEA) or equivalent) shall be used to assess and control the hazards associated with manual tasks.

10.2 Where the risks associated with manual handling cannot be controlled adequately with the use of a JSEA then an Operational Risk Assessment shall be conducted.

10.3 Assessment processes should take into account the following:

a) Reviewing the whole task in stages or steps

b) Reviewing the area(s) in which the task is being performed

c) Identifying risk factor(s) (See Section 8)

d) Determining the source of the risk(s) (See Section 9)

e) Controlling the risk(s) using the hierarchy of control

f) Consider:

- Is the task necessary?
- Can the source of risk (work area layout, environment etc.) be changed?
- Can mechanical aids be used to perform the task?
- What training is necessary to support the control measures?

10.4 A single control or a combination of controls from the hierarchy of controls may be required to eliminate or reduce the risk

a) ELIMINATION Eliminate the hazard to completely remove the risk	Examples: • Automate the manual task • Deliver goods directly to the point of use to eliminate multiple handling
b) SUBSTITUTION Replace the hazard with something that gives rise to a lesser risk	Examples: • Replace heavy items with those that are lighter, smaller and/or easier to handle • Replace hand tools with power tools to reduce the level of force required to do the task
c) ISOLATION Isolate the hazards from any worker exposed to it	Examples: • Isolate vibrating machinery from the user
d) ENGINEERING Design out the hazard	Examples: • Use mechanical lifting aids • Change the design or layout of work area • Use ergonomically designed tools and equipment
e) ADMINISTRATIVE Work methods or procedures to minimise exposure to the hazard	Examples: • Safe operating procedures • Rotation of workers between different tasks • Designating two person tasks
f) PERSONAL PROTECTIVE EQUIPMENT Last line of defence	Examples: • Protective gloves, clothing and footwear

10.5 Control measures shall be reviewed to ensure their ongoing effectiveness in consultation with the workers involved in manual handling tasks and Health and Safety Representatives, if applicble.

10.6 Control measures shall also be reviewed if a new hazard or risk is identified, before changes in the workplace, if consultation indicates a review is required or a Health and Safety Representative requests a review.

11 Information, training and instruction

11.1 All workers shall be provided appropriate information training and instruction on safe manual handling techniques and on the use of mechanical handling aids and personal protective equipment.

11.2 All workers shall comply with relevant safe operating procedures and work instructions with consideration to manual handling tasks