PILBARA PORTS

ISOLATIOND AND TAGGING PROCEDURE

A440280

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1. PURPOSE

The purpose of the Pilbara Ports Isolation and Tagging Procedure is to ensure the safety of all personnel on Pilbara Ports' controlled sites and protect from injury caused by an uncontrolled release of energy.

This procedure aligns with statutory regulations and Pilbara Ports' Workplace Health and Safety Policy and supporting procedures. This alignment ensures, where practicable, positive isolation is used for the protection of personnel working under a system of isolation on all Pilbara Ports controlled sites.

Positive isolation is required when working on or near equipment that poses a risk to personnel, damage to plant or environment.

Where positive isolation is not possible, operational controls that permit controlled movement when a positive isolation is not in place must be included within a Standard Work Instruction (SWI) or Safe Work Method Statement (SWMS). Once complete, these documents must be formally approved for the specified task by the Electrical Governance Superintendent for all Pilbara Ports' controlled areas. Should a SWI or SWMS not exist for that task, a Job Hazard Analysis (JHA) must be prepared and approved by the Port Manager before commencing that task.

2. SCOPE

This Pilbara Ports Isolation and Tagging Procedures applies to all Pilbara Ports controlled sites that involve work tasks with a risk of a hazardous release of energy (e.g., electrical, mechanical, chemical energy, stored energy & liquid energy).

This procedure outlines the methods to be used when performing isolations on plant and equipment to prevent accidental release of energy sources whilst personnel are performing work on plant and equipment.

A key requirement in preventing accidental energy release is to ensure that where practicable all isolation points are positively isolated. This will be achieved by ensuring that:

- Electrical equipment is proven to be de-energised, and the isolation points locked.
- Mechanical isolations are proven de-energised, systems bled (where applicable), pressure released and locked in the case of valves and restraining devices and an air gap provided or the use of spades or blanks in the case of pipelines.

The system will require:

- Training and assessment to ensure personnel are competent to carry out the tasks required by these procedures.
- The use of Pilbara Ports approved padlocks to maintain the integrity of the isolation/s at the specified isolation point/s.
- The use of tags with padlocks to identify ownership and control.

Isolations involving high voltage must only be carried out by appointed persons and may require specifically designed switching procedures which differ from the procedures referred to in this and related documents. Please refer to the Pilbara Ports High Voltage Access Procedure.

3. ASSOCIATED DOCUMENTS

- Occupational Safety and Health Management Plan
- Isolation Officers Training Assessment Plan
- Request for Isolation Permit Form
- Isolation Permit Form
- Permit Holder Acceptance Form
- Forced Lock Removal Form
- Pilbara Ports Detailed Work Instructions (DWI)
- Pilbara Ports Standard Work Instructions (SWI)
- Pilbara Ports Safe Work Method Statements (SWMS)
- High Voltage Access Procedure
- High Voltage Switching (SWI's)
- High Voltage Switching Program-Manual Tanker Disconnection Switching Program (SWI)
- QUBE Safe Work Method Statements (SWMS)
- QUBE Detailed Work Instructions (SWI)
- Record of Competency Form (HR)
- Observation and Demonstration of Competency Form (HR)
- Minor Isolation Officer Appointment Form
- Major Isolation Officer Appointment Form
- Verification Officer Appointment Form
- High Voltage Switching Assistant Appointment Form
- High Voltage Operator Appointment Form
- High Voltage Permit Officer Appointment Form
- Nominated Person Appointment Form
- Exclusive Control Permit
- Exclusive Control Permit Extension Sheet

4. ASSOCIATED REFERENCES

- Work Health and Safety Act 2020
- Work Health and Safety (General) Regulations 2022WA Electricity (Licensing) Regulations 1991
- AS/NZS 3000:2018 Electrical Installations and Wiring Rules
- WA Electrical Requirements (WAER) 2023
- Telecommunications Act 1997
- ENA NENS 04 2006 National Guidelines for Safe Approach Distances to Electrical and Mechanical Apparatus
- Telecommunications Act 1997

5. GENERAL SAFETY

The primary objective is to provide personal protection to persons working on plant and equipment.

A secondary consideration is the prevention of damage to equipment and environment. The procedure applies equally to servicing, repairs, inspections, testing and adjustments, cleaning and pre-start checks.

In all instances the Pilbara Ports Isolation and Tagging Procedure must be followed.

Remember: Failure to follow this procedure could result in death, disablement, personal injury or damage. For that reason, unauthorised removal of tags or other violations of the isolation and tagging procedure may result in disciplinary action.

This procedure is required to protect individuals or groups of personnel from physical injury or through contact with or exposure to, but not limited to the following types of energies:

- Chemical (corrosives, gases, toxic materials)
- Electricity
- Radiation (induction sources, lasers)
- Mechanical (kinetic)
- Pressure
- Gravitational
- Thermal
- Liquids
- Stored Energy

This procedure must be applied in circumstances where:

- Personnel are required to work on or within safe working distances of any of the above energies.
- Where there is a potential for contact and harm to people, equipment or the environment.
- The Pilbara Ports Isolation and Tagging Procedure must apply to all sources of energy, across all Pilbara Ports controlled areas.

Once the equipment has been isolated, the equipment must not be attempted to be re- energised until:

- Each individual has removed their own “Personal Danger” tags and locks from all isolation points, lockbox or lockout stations: or
- The isolation locks and tags have been removed by an authorised person: and
- Deemed safe by permit holder or isolation officer and Out of Service Tags are removed

Only authorised personnel will be allowed to isolate plant and equipment, a minimum competency of Minor Isolation Officer will enable personnel to isolate plant or equipment. Confirmation of Isolation of energies may be established using the following methods:

Breaking electrical circuits by using one of these three methods stated in Section 11.

- Closing valves in flow or delivery systems carrying pressure, gas, liquids, slurry, steam or venting to atmosphere to release stored pressure
- Open valves in flow or delivery systems carrying pressure, gas, liquids, slurry, and steam or venting to atmosphere to release stored pressure
- Physically securing an object to control gravitational forces using, but not limited to, pins, slings or chocks and belt clamps

> **Note:** Devices such as emergency stop, pull wire switches or any other devices associated with control systems must not be used as primary approved isolation points.

> **Note:** Where guards are not fitted, the pull wire cable is the limit at which any part of the body or implement in contact with the body can approach the conveyor, whether moving or idle, unless the conveyor has been positively isolated.

5.1 Competency to Perform Isolations

Only persons, who have completed the Pilbara Ports Isolation Officer Induction module, have been assessed, deemed competent and are authorised are to perform isolations.

As per the Isolation Officers Training Assessment Plan.

Once trained, assessed and deemed competent, the Isolation Officer must be appointed in writing by the Nominated Person to undertake the duties of Isolation Officer in accordance with the Pilbara Ports Isolation and Tagging Procedure.

5.2 High Voltage Isolations for Electrical Access

As per the Pilbara Ports High Voltage Access procedure.

Isolations for the purpose of High Voltage Access must use a High Voltage Access Permit in place of an Isolation Permit. All other conditions of this procedure must still apply.

No person must make personal contact, either directly or through any conducting object with any high voltage conductor believed to be dead, unless the conductor has been effectively earthed, tested, and is complying with all the requirements of the High Voltage Access Permit.

A High Voltage apparatus, which is to be earthed or short-circuited and earthed, must be proven to be dead and safe for earthing and short-circuited by use of equipment specifically designed for the purpose, and used in accordance with the manufacturer's instructions.

When there is no High Voltage Access to apparatus, the switching and placement of isolation locks on conveyor VSD earth switches is not required. For example, the isolation of conveyor VSDs for the purposes of mechanical works or clean down.

6. LOCKS AND USERS

6.1 General Requirements

Locks must be of a type approved by the Electrical Governance Superintendent.

6.2 Lock Identification

Red Lock - Personal Danger Locks must be a set of one to six locks per person and must be clearly marked with individually stamped number on the lock for identification.

Yellow Lock - Used to secure isolation points for Minor Isolations and lock box for Major Isolations.

Blue Lock - Clearly marked with lock box number and used on isolation points for Major Isolations.

White Lock - Used for HV Access Isolations. Refer to Pilbara Ports High Voltage Access Procedure.

Black Lock – Used for fuel isolations.

6.3 Registers

The following Registers must be kept by Pilbara Ports in the Pilbara Ports Document Management System. The Registers must be audited by the Pilbara Ports Maintenance Department on a regular basis.

6.3.1 Appointment Register

Registers outlining the appointed persons for each of the following must be kept;

- Minor Isolation Officers
- Major Isolation Officers
- Verification Officers
- HV Operators
- HV Access Permit Officers
- HV Isolation Assistants

This register must include the following information;

- Name of the Person
- Date of Appointment
- Name of Nominated Person
- Type of Appointment

6.3.2 Permit Holder Acceptance Form register.

This register must include the following information;

- Name of the Person & company
- Date of Completion
- Permit holder acceptance sign off
- Pilbara Ports delegate sign off

6.3.3 Maintenance Shift Log (if applicable)

An electronic or hard copy log used by the Maintenance team for recording all isolation and de-isolations. This is for all isolations except Minor Isolations.

6.3.4 Isolation Numbering/Isolation Register

The numbering of Isolations will be sourced from the Isolation Register. The register is to be completed using the following information.

- Date
- Lockbox number (if applicable)
- Isolation Type
- Isolation number
- Equipment to be isolated
- Isolation Officer

No Isolation and Isolation permit are to begin until all information is completed on the Isolation Register.

Isolation types required to be recorded on the Isolation register are defined by the Area Electrical Supervisor.

6.4 Isolation Officers

The Electrical Governance Superintendent must appoint a Nominated Person or persons in each operational area who will be responsible for approving and Authorising Isolation Officers.

Personnel who are to be deemed an Isolation Officer must first complete the Isolation Officer Induction, hold relevant experience in the plant or operational areas and pass the relevant competencies. As determined by the Isolation Officers Training Assessment Plan

On completion of the required training, Isolation Officer's will be authorised to carry and place Isolation Locks.

The Isolation Officer Appointment form (for the equipment specified) must clearly identify the types of isolations that they are allowed to complete (Radiation, Electrical, and Mechanical).

Only authorised, trained and competent personnel must be allowed to carry out Isolations on specific plant and equipment.

6.5 Personal Lock Holders (Red Personal Locks)

Personnel who are Personal Lock Holders must be trained and deemed competent by completion of the Pilbara Ports Personal Lock Holders Induction.

A person must not use another person's lock(s) and key that are registered. A lock and key set must only be used by one person at a time.

No person must place another person's lock.

No person must remove another person's lock unless authorised. Refer to section13.1.

All the locks on a lock set must use the same key. Only one key to be issued per lockset.

Personal locks and key must be marked with a unique identification number.

A personal lock holder must gain permission by making positive contact with the task supervisor prior to attaching their personal lock and tag to isolation points in the presence of the task supervisor.

A personal lock holder must not isolate plant and/or equipment, except for appointed Minor Isolation Officers as per section10.1.

A record of Personal Lock Holder Inductions must be maintained and recorded in the Pilbara Ports Induction database.

A person must not leave a work site without removing personal danger tag and lock.

6.6 Yellow Isolation Locks

Yellow Isolation Locks are used to lock out a Minor Isolation Point, or to lock the key to the blue locks in the lockbox or lockout station under a Major Isolation.

One isolation key will be issued to each Isolation Officer.

All isolation locks must use the same key.

Isolation lock keys must be marked with a identification number.

Spare locks and keys must be kept at a central location at each site.

6.7 Record Keeping

The following records pertaining to this procedure must be maintained at each site / location.

- Request for Isolation Form
- Isolation Permit Form
- HV Switching Programs used for isolation of plant.
- Isolation Register
- Pilbara Ports Lock Register
- Personal Lock register

Records are to be retained as per the Pilbara Ports Record keeping Policy.

The following records must be kept in the Pilbara Ports Safety Management and document management systems;

- Record of all incidents and accidents related to the use of the Isolation and Tagging Procedure
- Training competencies and completion date
- Appointments detailing site authorisation of Isolation Officers
- Appointments detailing site authorisation of High Voltage Operators / Assistants for the purpose of isolations
- Nominated person

7. TAGS

The use of tags is considered an administrative control and as such only provides limited protection to people and plant; therefore, in all cases a physical isolation must be used in conjunction with a lock and tag to prevent the accidental activation of an isolation point.

7.1 Personal Danger Tags

Any person required to work on the equipment must place their clearly identified personal lock and tag on a hasp located on the isolation point or lock box.

The isolation must be tested and/or proven prior to the commencement of work by testing for absence of electrical power or stored energy.

A Personal Danger Tag is for single use only and must be destroyed on completion of task.

Reusable Pilbara Ports issued; Personal Danger Tags may be used in place of a single use Personal Danger Tag. These must be issued by the area or specific Port Electrical Supervisor.

The Personal Danger Tag and lock are designed to give personal protection and to highlight that the employee/s whose name appears on the Personal Danger Tag are engaged in carrying out tasks to the tagged equipment and could be at risk if the machine were to be started or moved.

7.1.1 Contractor Personnel

All contractors and visitors working on Pilbara Ports sites must conduct isolations in accordance with this procedure. Personnel must also follow this procedure in relation to tag use.

All contract personnel must place their personal lock and Personnel Danger Tag on the isolation point whilst in the presence of the Task Supervisor, with the exception of contractors trained and authorised as Pilbara Ports Isolation Officers.

All Personal Danger Tag Reminder stubs found on the bottom section of the tag, if applicable, must be retained by the Lock Holder.

Where a contractor or visitor has any queries or uncertainty when undertaking tasks within this procedure, they must refer to their Task Supervisor or delegate from Pilbara Ports

Figure 1: Personal Danger Tag

Figure 2: Reusable, Pilbara Ports Issued Personal Danger Tag

7.1.2 Attaching a single use Personal Danger Tag

The person attaching the tag must completely fill the tag with the following information:

- The equipment / plant / lockbox the tag was placed on
- Name and company of person placing tag
- The classification/department the person works for
- The date that the tag was placed
- Signature
- Work order / job number if applicable
- Contact number

It is important to clearly identify the exact piece of equipment that the tag and lock was placed on to allow identification of those personnel working on the plant.

7.1.3 Attaching a reusable Personal Danger Tag

The person attaching the tag must ensure that the details on the tag are up to date and correct.

Note: Each and every person working on the job must place their own Personal Danger Tag / Personal Lock before the job commences, only after the isolation has been tested and/or proven effective. Once placed it must remain in place for the duration that the person is on the job. Lock and tag must be removed at the end of each shift or when a person leaves the job for an extended period or leaves the Pilbara Ports controlled area. A new tag is to be placed upon return.

7.1.4 Removing the Tag

No person must remove another person's Personal Danger Tag.

Only the person who signs and attaches the Personal Danger Tag must remove it.

If a Personal Danger Tag has been left on the equipment at the end of the shift, then that person will be contacted to return to site in their own time to remove their Personal Danger Tag.

If that person cannot be contacted or is in an unfit state to return to site or is off on R/R then Forced Lock Removal Form will be initiated (as per section 13.1.

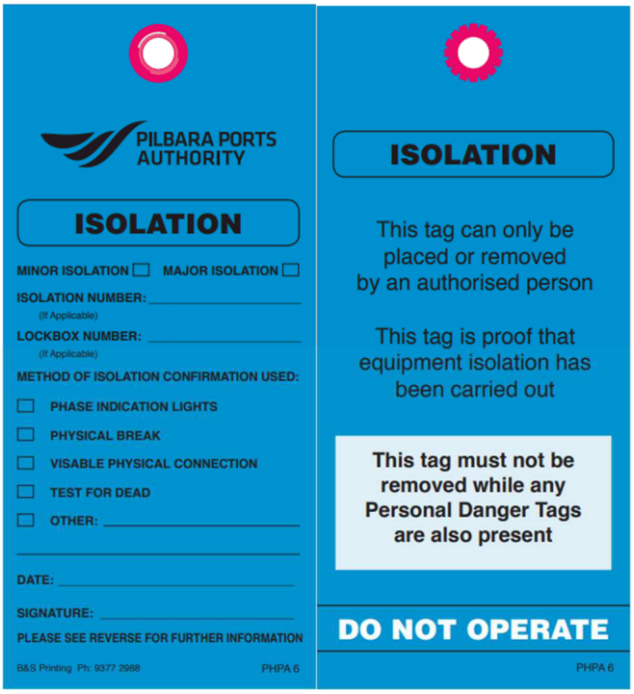
Your Personal Danger tag and lock must be removed from the equipment by only you on completion of the task, at the end of the shift, when leaving site or as requested by the Task Supervisor.

7.2 Isolation Tags

The Isolation Tag Indicates equipment has been isolated by an Isolation Officer. Any item of equipment or machinery marked with an Isolation Tag must not be operated.

The equipment must be in an "Isolated" position, thereby removing potential energy.

Figure 2: Isolation Tag



7.2.1 Attaching the Tag

The Isolation Officer must print the following information on the tag:

- Type of isolation
- Isolation number (if applicable)
- Lockbox number (if applicable)
- How the isolation was confirmed
- The date that the tag was placed
- Signature

The task supervisor must be notified as soon as possible if the equipment can be returned to service to ensure that the tag can be removed, and the plant reinstated.

The Permit Holder must ensure the Isolation Tag and lock remains and if the task is not complete or the equipment is not safe for use, an Out of Service tag must be attached to the isolation point and/or plant equipment controls.

7.3 Out of Service Tags

The Out of Service Tag allows for faulty, unsafe, or permanently disabled equipment to be taken out of service to prevent further use or damage to the equipment. Any item of equipment or machinery marked with an Out of Service Tag must not be operated or used except for the direct purpose of repair or commissioning by an authorised person.

The equipment must be in an “Isolated” position, thereby removing potential energy. A completed yellow Out of Service Tag must then be placed on the isolation point. If it is a power tool, hand tool, apparatus or equipment that is not energised, the Out of Service Tag must be securely attached to the defective equipment.

Figure 3: Out of Service Tag

7.3.1 Attaching the Tag

The person must print the following information on the tag:

- Equipment name
- Name of person placing tag
- Classification of person placing tag
- The date that the tag was placed
- Signature
- Reason for Out of Service
- Phone Number

It is important to clearly identify the exact reason for placing the tag to allow proper analysis and rectification of the problem. The equipment owner or area supervisor must be notified as soon as possible of the condition and the reason it has been placed Out of Service.

Once a piece of equipment has been tagged Out of Service to conduct repairs, the equipment must be isolated in accordance with this procedure.

An Out of Service Tag must remain attached to the device or main isolation point of the equipment when left unattended, so that the unsafe condition of the equipment is communicated readily to any person.

Anyone can place an Out of Service Tag on faulty plant/equipment; however only authorised personnel or an authorised delegate must remove it.

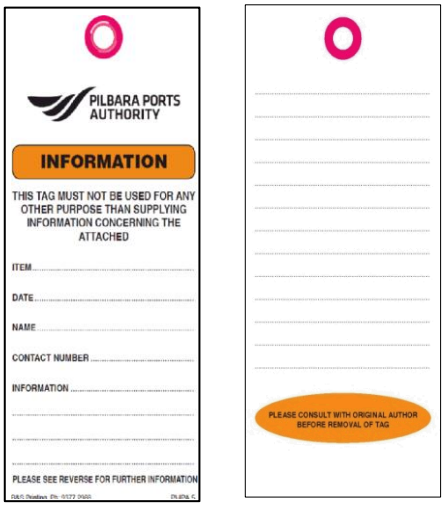
Only a qualified person in the maintenance or repair of that piece of equipment must then remove the tag once repairs are complete.

7.4 Information Tag

In some instances, instruction needs to be given about a specific piece of equipment or barricading of a designated area. In these instances, an information tag must be used.

The tag must be placed by personnel to communicate a message about the conditions of entry, status of equipment or any other relevant information. In the event an Information Tag has been placed all personnel must read the information.

Figure 4: Information Tag



7.4.1 Attaching the Tag

The person attaching the tag must completely fill out the tag with the following information:

- The equipment / plant the tag was placed on
- The date and the time that the tag was placed
- Print their name and contact information
- Reason why the tag has been put in place, equipment status or entry conditions

7.4.2 Removal of Information Tag

Removal of Information Tags must only occur once the information is no longer relevant.

Prior to removal of tag contact the area owner or appropriate supervisor.

Any person may remove the tag once the steps above are completed.

7.5 Exclusive Control Tag

Exclusive Control Tags must be placed at each entry of job site and on Restricted Access Tape for Exclusive Control Zones. The tag must display “Exclusive Control” and contact numbers for day shift and night shift if applicable.

Figure 5: Exclusive Control Tag

8. HASPS AND LOCK BOXES

8.1 Hasps

Hasps are used to allow multiple locks to be placed on an Isolation point.

8.1.1 6 Hole Hasp

This is used for Minor Isolations when requirement is 5 or less personnel to lock on or to extend the number of locks that can be placed on a lockbox

Figure 6: 6 Hole Hasp

8.1.2 D Hasp

This is used for Minor Isolations when requirement 5 or less personnel to lock on or to extend the number of locks that can be placed on a lockbox.

Figure 7: D Hasp

8.1.3 12 Hole Hasp

This is used secure a blue lock box for Isolations which require 12 or less personnel to lock on and can also be used to expand lock-on capacity of master lock boxes.

Figure 8: 12 Hole Hasp

8.2 Lock Boxes

Pilbara Ports have different types of Lock Boxes which are used as follows;

8.2.1 Master Lock Box

- For use with a Major Isolation
- Involving greater than twelve (12) people or
- Involving more than fifteen (15) isolation point locks

8.2.2 Major Blue Lock Box

- For use with Major Isolations
- For use with up to twelve people (12) or
- For use with up to fifteen (15) isolation point locks
- For use with major isolations with HV that does not require HV access

8.2.3 Red HV Lock Box

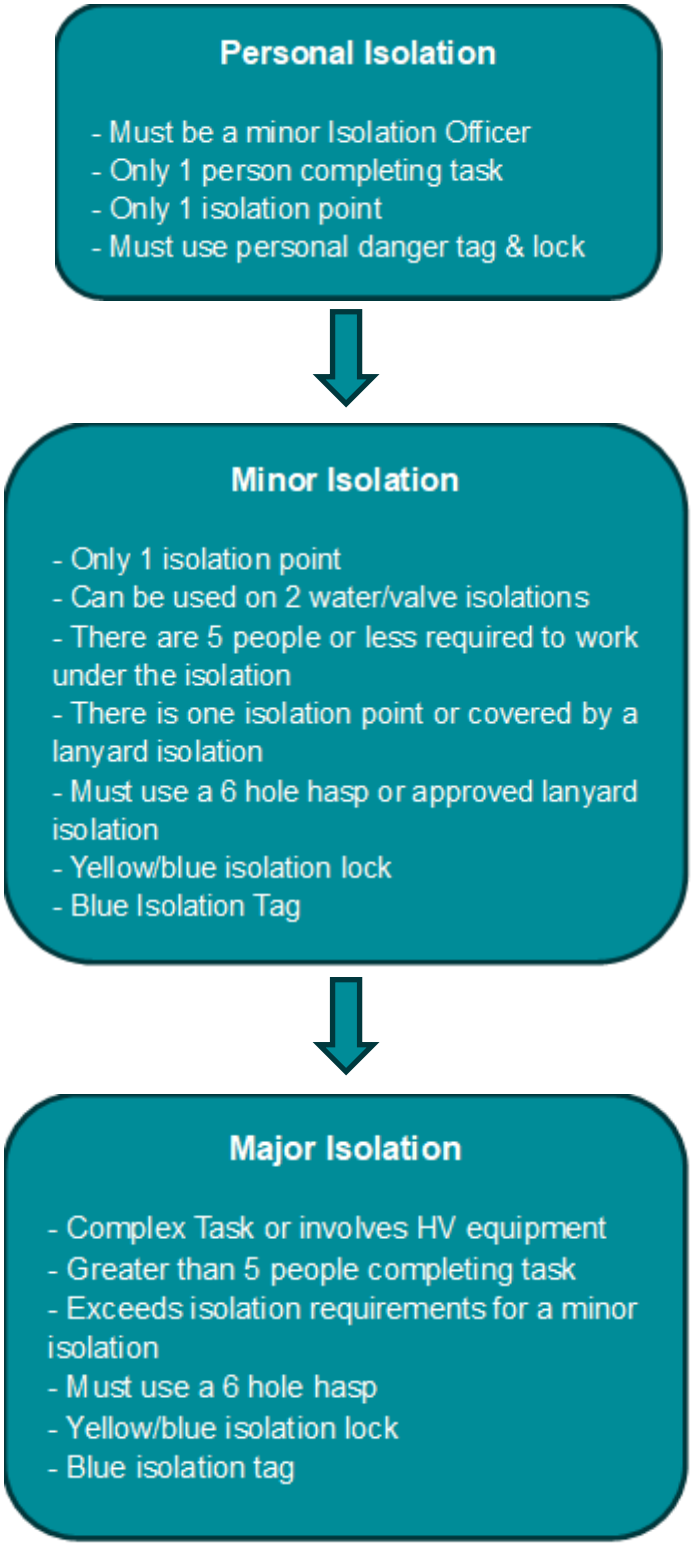
- For use with Isolations that require HV Access

8.2.4 Yellow Fuel Lock Box

- Isolation for bulk fuel tanker discharge operations.

9. ISOLATION FLOWCHART

9.1 Quick Reference Guide



10. TYPES OF ISOLATIONS

Two (3) types of isolation are used on all Pilbara Ports sites:

- Personal Isolation
- Minor Isolation
- Major Isolation

10.1 Personal Isolations

Personal Isolations must be used in situations where:

- There is one (1) isolation point only
- Only one person will be conducting a task
- The person applying the isolation is a trained and appointed Minor Isolation Officer

Controls used with a Personal Isolation are:

- JHA, SWI or SWMS
- Red Personal Danger Lock
- Personal Danger Tags

Electrical personnel may perform Personal Isolation utilising any isolation point:

- Confirmed by the use of phase indicator lights
- Alternatively, if no phase indicator lights are present (i.e. a hand valve) then the person must confirm that the energy source has been disconnected from the load side of the isolating device, through testing for dead and or bump test of machine
- Other local isolations may be performed by means of a de-contactor, valve etc.

Authorised personnel may perform Minor Isolations utilising / approved isolation points:

- Confirmed by the use of phase indicator lights
- Other local isolations may be performed by means of a de-contactor, valve etc

10.1.1 Raising a Personal Isolation

The authorised person must receive approval to take the equipment out of service from the equipment owner or person responsible for its operation.

The authorised person must identify the isolation point for the equipment Is suitable for the tasks scope of works.

The authorised person must operate the isolation device and secure it with a personal lock on the isolation point including Personal Danger Tag on the isolation point.

The authorised person must confirm the isolation as per the risk assessment.

The work/task may commence.

10.1.2 Locking onto a Personal Isolation

Personnel requiring the Personal Isolation for protection must:

- Obtain the permission or approval to take the equipment out of service from the equipment owner or person responsible for its operation, to place their personal lock and danger tag on the isolation
- Demonstrate a satisfactory understanding of the safe area of work covered under the isolation
- Confirm isolation point with the equipment owner or person responsible if required.
- Apply Personal Danger lock and tag

10.1.3 Locking off a Personal Isolation

When work is complete, when they leave site, or as directed the lock holder must:

- Remove their Personal Lock and Personal Danger Tag from the isolation point
- Destroy the personal danger tag

10.1.4 Closing a Personal Isolation

The authorised person must inspect the work area and ensure that the work is complete, the equipment is assembled and safe to operate.

If the work is complete and the equipment is safe to operate, the authorised person must:

- Ensure Personal Danger tag has been removed
- Remove personal isolation lock from the isolation point
- Operate the isolation point to the in-service position if applicable
- Notify the equipment owner or person responsible for its operation that the equipment may be returned to service.

If the work is not complete and / or the equipment is not safe to operate, the authorised person must:

- Attach Out of service tag to isolation point. Notify the equipment owner or person responsible for its operation that the equipment is not safe for return to service.
- Ensure Personal Danger lock and tag has been removed.

Advise the appropriate maintenance personnel of the equipment status.

10.2 Minor Isolation

Minor Isolations must be used in situations where:

- There is one (1) isolation point
- There is two (2) water valve isolation points
- There is an approved Lanyard Isolation e.g. Utah ship loader HPU's
- There are five (5) or less personnel required to work under the isolation

- The person raising the isolation is a Minor Isolation Officer and authorised for that piece of equipment

Controls used with a Minor Isolation are:

- JHA, SWI or SWMS
- Red Personal Danger Locks
- Personal Danger Tags
- Yellow Isolation Lock
- Blue Isolation Tag
- Six (6) Hole Hasp or D Hasp
- Isolation lanyards

Electrical personnel may perform Minor Isolations utilising any isolation point:

- Confirmed by the use of phase indicator lights
- Alternatively, if no phase indicator lights are present (i.e. a hand valve) then the person must confirm that the energy source has been disconnected from the load side of the isolating device, through testing for dead and or bump test of machine

Other local isolations may be performed by means of a de-contactor, valve etc.

Other authorised personnel may perform Minor Isolations utilising/approved isolation points:

- Confirmed by the use of phase indicator lights
- Other local isolations may be performed by means of a de-contactor, valve etc
- Alternatively, if no phase indicator lights are present (i.e. a hand valve) then the person must confirm that the energy source has been disconnected from the load side of the isolating device, through testing for dead and or bump test of machine

10.2.1 Raising a Minor Isolation

The Minor Isolation Officer must receive approval to take the equipment out of service from the equipment owner or person responsible for its operation.

The Minor Isolation Officer must identify the isolation point for the equipment Is suitable for the tasks scope of works.

The Minor Isolation Officer must operate the isolation device and place a hasp on the isolation point and secure it with a Yellow Isolation Lock and Isolation Tag.

If applicable, the Minor Isolation Officer is to place their Personal Danger Lock, Personal Danger Tag on the isolation point.

The Minor Isolation Officer must confirm the isolation as per the risk assessment.

If applicable, record that the minor isolation is being used in conjunction with a Major Isolation in appropriate area on Isolation Permit.

The work/task may commence.

10.2.2 Locking onto a Minor Isolation

Personnel requiring the Minor Isolation for protection must:

- Obtain the permission of a Minor Isolation Officer, to place their personal lock and danger tag on the isolation
- Demonstrate a satisfactory understanding of the safe area of work covered under the isolation
- Confirm isolation point with the Minor Isolation Officer
- Apply Personal Danger lock and tag
- Contract personnel must place their Personal Lock and Personal Danger Tag on hasp attached to the isolation point in the presence of a Minor Isolation Officer

Should there be insufficient holes left on the hasp, the isolation must be changed to a Major Isolation. The attachment to another lock or hasp is not permitted.

10.2.3 Locking Off a Minor Isolation

When their work is complete, when they leave site, or as directed by the Minor Isolation Officer, the lock holder must:

- Remove their Personal Lock and Personal Danger Tag from the hasp
- Destroy and dispose of the Personal Danger Tag

10.2.4 Closing a Minor Isolation

The Minor Isolation Officer or Task Supervisor must inspect the work area and ensure that the work is complete, the equipment is assembled and safe to operate.

If the work is complete and the equipment is safe to operate the Minor Isolation Officer must:

- Ensure all Personal Danger tags are removed
- Remove Isolation Tag, Yellow Isolation Lock and Hasp from the isolation point
- Operate the isolation point to the in-service position if applicable
- Notify the equipment owner or person responsible for its operation that the equipment may be returned to service

If the work is not complete and / or the equipment is not safe to operate the Minor Isolation Officer must:

- Attach Out of service tag to isolation points leaving isolation tag and lock in place. Notify the equipment owner or person responsible for its operation that the equipment is not safe for return to service
- Ensure all Personal Danger locks and tags (if applicable) are removed from the hasp.
- Advise the appropriate maintenance personnel of the equipment status

10.3 Major Isolation

A Major Isolation must be used in situations where:

- The task is complex, and a greater degree of control is required; or
- Where the number of people working on a job exceeds five (5) ; or
- The number of isolation points required exceeds the requirements for a Minor Isolation; or
- The personnel raising the isolation are Major Isolation Officer/s and authorised for that piece of equipment; or
- The task involves High Voltage Equipment

Note: A Minor Isolation may be used in conjunction with a Major Isolation for a single task provided that this is recorded onto the Isolation Permit under the Task Supervisor Sign On section, by checking the box provided. This must be captured in the risk assessment for the task.

Controls used with a Major Isolation are:

- Request for Isolation Permit form
- Isolation Register
- JHA, SWI or SWMS
- Isolation Permit
- Lock box (Major or Master)
- Personal Danger Locks (Red)
- Personal Danger Tags
- Yellow Isolation Locks
- Blue Isolation Locks
- Blue Isolation Tags
- Maintenance Shift Log (If applicable)
- Hasp

10.4 Major Isolation Permit System

10.4.1 Raising an Isolation Permit for Major Isolations

A Request for Isolation Permit form is completed by the person requesting access for the work.

The major isolation officer must confirm that the Requested isolation points are appropriate for the scope of work through consultation with the Requestor.

A Major Isolation Officer identifies all isolation points and compiles the Isolation Permit, based on the information supplied on the Request for Isolation Permit.

The Major Isolation Officer obtains approval to take the equipment out of service from the equipment operator or owner.

The Major Isolation Officer enters the Isolation Number and Lock box Number in the Isolation Register.

If additional tasks are required under an existing isolation, the request for isolation against additional tasks is assessed against the current Isolation Permit.

Note: If deemed covered by current isolation points the request is attached to the Isolation Permit and indicated in the scope of work section by an Isolation Officer. If the request is not covered by current isolation points an additional Isolation Permit is required

If there are changes to the Isolation Points on the Isolation permit, the Isolation Permit must be cancelled, and a new Isolation Permit issued as applicable.

10.4.2 Issuing an Isolation Permit

The Major Isolation Officer identifies the Isolation Type, Isolation Number, Lock box Number, Date and Time on the Isolation Permit.

The Major Isolation Officer writes the reason for the isolation from the Request for Isolation on the Isolation Permit.

The Major Isolation Officer lists the equipment to be isolated under the Isolation Permit.

The Major Isolation Officer performs the isolation and places the locks and tags in accordance with the Isolation Permit. Blue Isolation locks and Isolation Tags are attached to the isolation points. The Isolation Number is recorded on each Isolation Tag. The Verification Officer then checks that the isolations are in place and are in accordance with the request for Isolation Permit. The isolation points are confirmed locked and tagged with the Isolation Number and date recorded on each isolation tag.

The Major Isolation Officer confirms the number of locks placed. The key to the isolation locks are locked inside the lock box by placing a 12 hole hasp, yellow isolation sleeve, isolation tag and a yellow isolation lock on a major lock box, or a isolation tag and yellow isolation lock on a master lock box. The Isolation Number and date is recorded on the Isolation Tag.

The Major Isolation Officer signs the Isolation Permit.

The Verification Officer signs the Isolation Permit as verification that the isolation is in place.

The Permit Holder must ensure that:

- The isolations are in accordance with the Request for Isolation, either via the Isolation Permit or by viewing the physical isolation points
- All Task Supervisors are aware of the isolations in place and confirm they cover the tasks being undertaken
- The isolation number is recorded on the isolation tags and permits
- The Permit Holder confirms and signs the Isolation Permit

- The Isolation Permit is placed in either the Yellow Isolation Pocket, attached to the lock box, or to the major lock box. Ensure that the front page of the Isolation Permit is clearly shown and all signatories to the permit are clearly visible.

10.4.3 Transfer of Isolation Permit to New Permit Holder

When the Permit Holder leaves site for any reason and work is to continue under the permit, the Isolation Permit must be transferred to a new Permit Holder.

The current Permit Holder must advise the new Permit Holder of any special circumstances pertaining to the permit in person.

The current Permit Holder must sign the Transfer of Permit Holder section of the Isolation Permit to relinquish control of the permit, with date and time.

The new Permit Holder must sign on to the Transfer of Permit Holder section of the Isolation Permit to accept responsibility for the permit, with date and time accepted.

Personnel already locked on are not required to lock off during this process. Additional personnel are not permitted to lock on during this process.

10.4.4 Task Supervisor Actions: Sign on the Isolation Permit

The Task Supervisor is the person who is responsible for:

- The safe execution and completion of each specific job covered by the Isolation Permit
- Ensuring that members of the work party read and sign on to the JHA pertaining to their work
- Ensuring that members of the work party read and understand the safe areas of work covered by the Isolation Permit

The Task Supervisor reads the Isolation Permit and checks the equipment listed as isolated. They ensure the Isolation Permit covers the scope of work for the specific job for the work group. Clarification may be sought from Permit Holder or Isolation Officer.

The Task Supervisor then receives permission from the Permit Holder to sign on to the Isolation Permit.

The Task Supervisor must demonstrate a thorough understanding of the areas / equipment covered under the Isolation Permit.

The Task Supervisor signs onto the Isolation Permit by:

- Entering the work order or other reference number, if applicable
- Enters the equipment to be worked on
- Writes their name, company and contact details
- Enters the date and time that they are signing on to the permit

- If applicable, record that a minor isolation is being used in conjunction with the Major Isolation by checking the “Minor Isolation” box
- The task supervisor enters the Isolation Number on to the JHA pertaining to the work
- Supervise workers locking on.

10.4.5 Task Supervisor Actions; Sign Off the Isolation Permit

The Task Supervisor signs off the Isolation Permit when the job is complete, at the end of the shift, when the Isolation Permit is closed or as required by the Permit Holder.

10.4.6 Task Supervisor Actions; Task Handover to another Task Supervisor

If the Task Supervisor is required to change during the duration of the Isolation Permit, the Task Supervisor must sign off the Isolation Permit and hand over task and/or work group to the new Task Supervisor as follows:

- Ensure the new Task Supervisor is aware of the equipment, work group and work status. This can be done in person or in writing
- Enters time on the Isolation Permit and mark the Task Complete as Y for Yes or N for No

10.4.7 Task Supervisor Actions; Work is complete, and the equipment is safe to use

Work Is Complete and the Equipment is safe to use, the Task Supervisor must:

- Inspect the work and check that the work is complete, equipment is assembled, guards are installed where applicable and equipment is safe to reinstate, and housekeeping has been addressed
- Ensure all members of the work group have removed their Personal Danger Locks and Personal Danger Tags from the lockbox
- Enters their signature, date and time on the Isolation Permit and mark the Task Complete as Y for Yes
- Advise the Permit Holder that the work is complete, and all members of the work group have locked off the Isolation Permit

10.4.8 Task Supervisor Actions: Work Is Not Complete

When work is not complete, the Task Supervisor must:

- Ensure all members of the work group have removed their Personal Danger Locks and Personal Danger Tags from the lock box

- Advise the Permit Holder that the work is incomplete, and members of the work party have locked off the Isolation Permit
- Place an Out of Service tag on the lockbox and/or plant equipment controls
- Enters time on the Isolation Permit and mark the Task Complete as N for No

10.5 Locking and Tagging On/Off an Isolation Permit

10.5.1 Personnel Locking on the Isolation Permit

Personnel who use the Isolation Permit to protect themselves must:

- Read the Isolation Permit and check the equipment listed as isolated on the Isolation Permit covers the scope of work for the specific task they intend to do
- Obtain the permission of their Task Supervisor, to place their personal danger lock and personal danger tag
- Demonstrate to the Task Supervisor a satisfactory understanding of the safe area of work covered under the permit
- Confirm that the isolation lock key is locked inside the lock box and a yellow isolation lock is in place
- Place their Personal Danger Lock and Personal Danger Tag on the lock box
- Contract personnel must place their Personal Danger Lock and Personal Danger Tag on the lock box in the presence of the Task Supervisor

In the case of a Major Isolation using a Master Lock Box:

Should there be insufficient holes on the Master lock box; a D hasp may be placed in one of the holes and locks placed directly on the hasp. The attachment to another lock is not permitted.

10.5.2 Personnel Locking Off the Isolation Permit

When their work is complete, or when personnel leave site, or as directed by the Task Supervisor, the personnel are to lock off the Isolation Permit.

To lock off an Isolation Permit, personnel must:

- Remove their Personal Danger Lock and Personal Danger Tag from the lockbox
- Destroy the Personal Danger Tag

10.5.3 Closing an Isolation Permit

The Task Supervisor must check the work areas for housekeeping and establish that all nominated equipment on the Isolation Permit is complete, safe and ready for de-isolation.

The Task Supervisor must check that personnel are clear of any plant or equipment and are aware of an impending start up.

The Task Supervisor enters his / her signature, date and time on the Isolation Permit and mark the Task Complete as Y for Yes or N for No.

The Permit Holder must confirm that all Task Supervisors have signed off the Isolation Permit with the status of the plant understood and Out of Service tags placed where necessary.

The Permit Holder must verify that all Personal Danger Locks and Personal Danger Tags have been removed from the lockbox, and marks and signs the appropriate box on in the Permit Completion section of the Isolation Permit.

The Permit Holder returns the closed Isolation Permit to the Isolation Officer.

To close the Isolation Permit, the Isolation Officer marks and signs the completion box in the Permit Completion section of the Isolation Permit.

10.6 Emergency or Cyclone Preparation

Refer to Staff Cyclone Procedures for relevant Port facilities.

Isolation of plant and equipment for cyclone preparation must be conducted in accordance with these procedures.

Once instructed to evacuate site, all lock boxes, permits and keys must remain in a secured location until the All-Clear notice is given to return to site.

When directed by the Site Cyclone Coordinator, personnel must conduct a risk assessment of each plant or operational area, ensuring the equipment is complete and safe to de-isolate.

If equipment is found to be damaged, faulty or repairs are required, the isolation must remain in place and an Out of Service Tag must be placed, as per section 8.3.

11. METHODS OF ISOLATION

11.1 Electrical Isolation Devices: General

Electrical Isolations must only be performed by authorised Isolation Officers.

An isolation officer must follow the below standards and codes for proving de energised.

- Section 4 of the Code of Practice for Persons working on or near energised electrical installations
- Section 3.2.5 of AS/NZS 4836:2023

Any suitably trained Pilbara Ports personnel member or suitably trained contractor can be trained as an authorised Isolation Officer to carry out Minor Isolations on specific items of plant/equipment. If there are any issues experienced whilst following the Minor Isolation process, they must stop work and the isolation immediately and contact a Pilbara Ports Electrician and have the Isolation verified.

Non-Electrical qualified personnel may perform Isolations utilising low voltage (LV) isolators, provided:

- They are authorised Isolation Officers for that equipment
- Either Phase Indicator Lights are installed on the load side of the isolating device or there is a Visible Physical Break
- The level of isolation is a Minor Isolation

When locks are attached to an isolator the panel door must not be opened.

Note: Minor Isolation Officer appointments may be made for personnel not of an electrical background provided that they are only appointed for equipment that has the isolation confirmation method of either Phase Indicator Lights installed on the load side of the isolating device or there is a Visible Physical Break.

Electrical isolation devices must be checked to be in the off position prior to attaching the isolation tag.

Caution: Some devices have the ability to be locked in the on position.

Disconnection of electrical power supply should always be proven before commencing work.

There are three ways to confirm a positive electrical isolation:

- Physical separation
- Phase indication lights
- Electrically testing (test for dead)

11.1.1 Confirmation of Electrical Isolation by Visible Physical Separation

Some electrical isolating devices have provision to inspect for a visible air gap between the feed and load sides of the isolating device.

A visible air gap may be used to determine that electrical power has been disconnected from the plant.

To use an electrical isolating device with a visible break, the Isolation Officer must:

- Identify the isolating device as per the Isolation Permit
- Operate the isolating device to the “off” position
- Inspect the visible physical air gap in each phase of the electrical conductors and confirm that there is an air gap on each phase between the feed and the load sides of the isolating device
- Lock the isolating device in the “off” position
- Place an isolation tag on the isolator
- Sign the step in the Isolation Permit or HV Switching Program

11.1.2 Confirmation of Electrical Isolation Devices by Phase Indicator Lights

Phase indicator lights indicate that there is electrical power supply on an electrical conductor.

Phase indicator lights may be installed on each phase of the load side of the electrical isolating device.

To operate an isolating device fitted with phase indicator lights, the Isolation Officer must:

- Be trained, assessed, deemed competent and appointed as a Minor Isolation officer
- Inspect and confirm that the phase indicator light on each phase is on, indicating that power is supplied to the load side of the isolating device
- Operate the isolating device to the “off” position
- Inspect and confirm that the phase indicator light on each phase is off, indicating that power is disconnected from the load side of the isolating device
- Lock the isolating device in the “off” position
- Complete and place an Isolation Lock and Tag on the Isolation point

11.1.3 Confirmation of Electrical Isolation by Electrical Testing

Some electrical isolating devices do not have provision for a visible air gap or phase indicator lights.

For electrical isolating devices that do not have a visible air gap or phase indicator lights the Isolation Officer must:

- Be trained, assessed, deemed competent and appointed as a Minor Isolation officer
- Operate the isolating device to the “off” position
- Confirm that the power has been disconnected from the load side of the isolating device, through testing with an appropriate metering device by a Qualified Electrician
- If it is known the equipment was operational, then by attempting to start the machine from the local control station and confirm that the machine did not start
- Lock the isolating device in the “off” position
- Place an Isolation Lock and tag on the isolator

11.1.4 Electrical Isolating Devices That Have No Means of Determining If Load Side Electrical Energy Has Been Disconnected

Some electrical isolating devices may not have provision for physical inspection or testing with a meter. For these isolating devices the following procedure must apply.

A formal Risk Assessment must be conducted by a team comprising of as a minimum:

- Isolation Officer

- Task Supervisor
- Verification Officer (in the case of Major Isolations)
- Qualified Electrician

The Risk Assessment must specifically address how it will be confirmed that electrical energy has been disconnected to the plant to be worked on, according to the scope of work.

At least one member of the Risk Assessment team must be a Qualified Electrician.

If the Risk Assessment indicates that the residual risk of proceeding is low, the task may proceed. For situations where the residual risks of proceeding are high or extreme, the Port Manage rmust be contacted prior to proceeding.

The Isolation Officer must report the Isolating Device in question, so it may be modified.

11.1.5 De-Contactor

De- contactors may be used as electrical isolating devices.

To use a de-contactor as an electrical isolating device, the Isolation Officer must:

- Be trained, assessed, deemed competent and appointed as a Minor Isolation officer
- Activate the e-stop for the equipment (if applicable)
- Remove the de-contactor from its socket
- Cover the de-contactor with a lockable device
- Place Isolation Locks and Isolation Tags on the de-contactor cover

11.1.6 Circuit Breakers

Circuit breakers may be used as electrical isolating devices.

These may only be operated by a Qualified Electrician.

To use a circuit breaker as an isolating device the Isolation Officer must:

- Be trained, assessed, deemed competent and appointed as a Minor Isolation officer
- Switch the circuit breaker to the off position
- Test the load side of the circuit breaker to ensure electrical energy has been disconnected
- Place an Isolation Lock and Isolation Tag on the lock out device

Figure 9: Example of a Circuit Breaker Lock out Device

11.1.7 Electrical Isolating Devices That Cannot Be Locked

Some electrical isolating devices may not have provision for locking them in the "off" position.

If a device is found to not have a lock out provision the isolation is to be carried out at the next isolation point up stream.

This device must be reported to Supervisor for immediate repair/ replacement.

11.2 High Voltage (HV) Isolation: General

Only Western Australian Licensed Electricians authorised as HV Operators are to conduct an isolation requiring the operation of a HV device.

Personnel trained and assessed as competent HV Isolation Assistants may participate in the Isolation of HV Motors for works other than High Voltage Access. For example, mechanical work and cleaning of Utah Conveyors.

11.2.1 High Voltage Access Permits

A High Voltage Access Permit is required in all cases where work is to be performed on, or in close proximity to, High Voltage Electrical Apparatus where the Safe Working Distance cannot be maintained.

If a High Voltage Access Permit is required, the process as outlined in the High Voltage Access Procedure must be followed.

High Voltage Access, Work in the Vicinity of High Voltage Apparatus and High Voltage Testing are not covered under this procedure. For further detail refer to the High Voltage Access Procedure.

11.2.2 Isolation of High Voltage Motors where there is No Potential for Contact with High Voltage Apparatus

For circumstances where a high voltage motor is isolated to conduct non- electrical works, for example mechanical work or cleaning on non-electrical components, a High Voltage Access Permit is not required.

Such isolations are to be conducted as per the Pilbara Ports Isolation and Tagging Procedure. Earthing of load conductors is not required.

11.3 Heavy Mobile Equipment (HME), Light Vehicles and Other Mobile Equipment

All mobile plant and equipment at Pilbara Ports operations must be isolated for the purpose of conducting maintenance activities as per the Pilbara Ports Isolation and Tagging Procedure to the level of isolation required as identified as per section 10.

11.3.1 Heavy Mobile Equipment

Heavy Mobile Equipment (HME) as a minimum must be fitted with an appropriate isolating device that disconnects power (electrical or pneumatic) to the vehicles starting system.

The isolation required for HME must be the same as that for Minor Isolations (refer section 10.1) with the following specific requirements pertaining to that equipment:

- Park the HME on a flat sturdy surface
- Ground hydraulic attachments
- Apply park brake
- Remove key from ignition
- Engage suitable gear to hold the machine via the transmission
- Switch off and lock the power from starting battery to the HME starting device (usually the main battery isolator)
- Apply locks and tags as per Minor Isolations
- If pneumatic starts are installed, follow manufacturer's procedure to isolate and discharge starting air devices
- Physically prevent the vehicle from movement by a means as determined appropriate via a risk assessment (e.g. wheel chocks, windrow)

11.3.2 Light Vehicles and Other Mobile Equipment

The isolation required for light vehicles and other mobile equipment must be as follows:

- Vehicle is to be parked fundamentally stable (use of wheel chocks to be considered)
- Engine shut down, transmission selected in an appropriate gear, with park brake engaged
- Ignition Keys are to be removed
- Minor Isolation placed on battery isolator (if applicable)
- Attach Out of Service Tag to vehicle steering wheel

Note: This basic isolation does not remove the need to consider other levels of control, such those required to control exposure to mechanical and stored energy. Controls should be applied according to the Take 5 risk assessment or JHA.

For maintenance tasks which require equipment to be energised and operating, personnel must:

- Have wheel chocks in place (determined by Take 5 or JHA)
- Ensure gear box is in neutral
- Ensure park brake is engaged
- Additional controls where practicable (i.e. tag on steering wheel, barricading, signage)

11.4 Mechanical Isolations

The below list is not inclusive of all forms of mechanical isolations. From time-to- time other devices may be required to be used as isolation points; this must require approval from the Port Manager.

Approved Devices may include, but not limited to:

- Valves
- Blank plates
- Drains
- Belt clamps
- Shuttle pins

11.4.1 Valves Process Lines/Vessels (Water, Fire Systems, Diesel, Oil, Slurry Water, Air, Sewerage)

Isolations involving valves need to be proven by releasing the pressure and material from process lines.

Note: Visual confirmation of this discharge or pressure and material needs to be obtained.

Any valves used to de-pressurise the system should be locked out in the appropriate position where practicable or left in the open position with Out of Service Tag.

11.4.2 Belt Clamps

Belt clamps must be fitted to conveyor belts at any time where there is a risk of uncontrolled belt movement with potential to cause harm or damage to personnel and/or equipment. The belt is to be restrained by one or more belt clamps on the circuit to isolate personnel and equipment from belt movement. The Supervisor in charge of the works will evaluate all works being completed on the equipment to determine the location of and number of belt clamps required.

Installation of belt clamp bars.

- Persons placing belt clamp isolation must be locked onto the appropriate belt isolation
- Install belt clamp complete with 2 x aluminium bars and 2 x white locking ends
- Lock down the white ends by turning the adjusting nut until sufficient force is on the belt

- Insert the isolation locking pin through the holes in both adjusters (pin does not have to be used, if this is not used then the isolation lanyard must be double wrapped around both adjusters)
- Attach shackles, chains and lever blocks as needed to isolate around solid structure. If shorteners are used in the process, then these need to be isolated with a double loop through the excess and the main chain
- Installation of belt edge clamps.
- Persons placing edge clamp isolation must be locked onto the appropriate belt isolation
- Place edge clamp at desired isolation point along the conveyor belt
- Lock down the clamp plate by tightening the 3 x M16 tensioning clamp bolts until firm
- Close isolation latch to prevent tensioning clamp bolt adjustment. Isolation lanyard must then be passed through edge clamp isolation point and shackles, chains.
- If shorteners are used in the process, then these need to be isolated with a double loop through the excess and the main chain

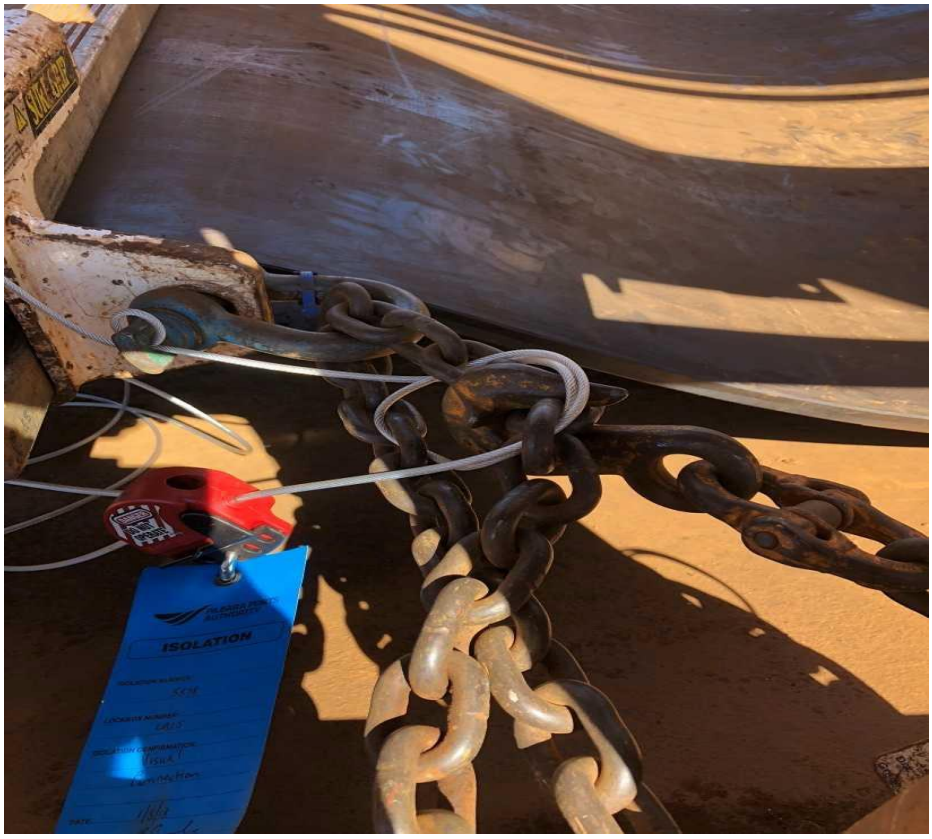
When identified by risk assessment belt clamps are not being utilised as a tool and need to form part of the isolation, Isolation of the belt clamps is to take place as follows.

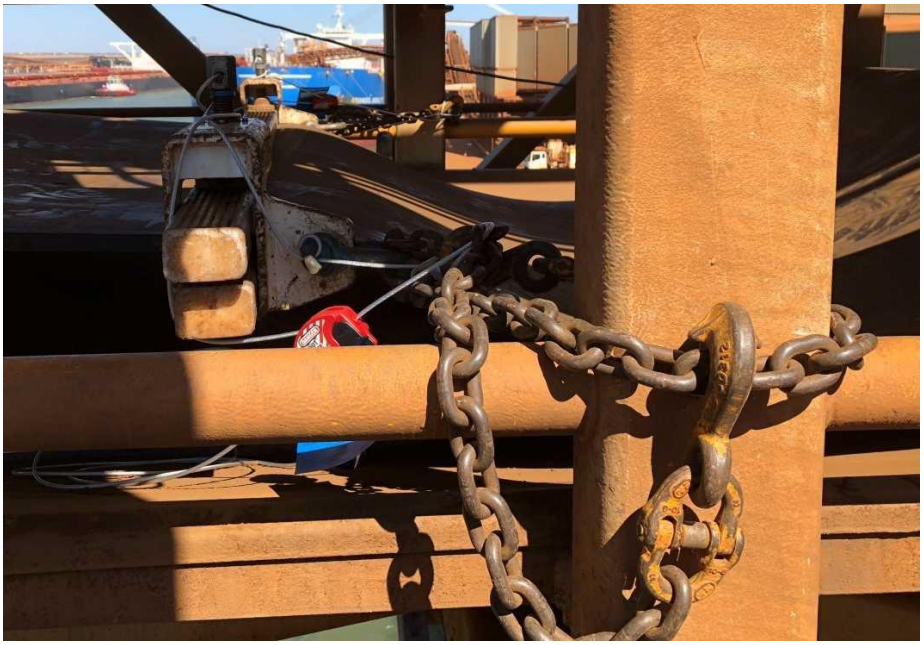
- Once the clamps, shackle and chains are in place and tight, a lanyard is to be used
- The lanyard must pass through all areas needing isolation and it must be double wrapped at each point where practicable
- A separate lanyard is to be used on each side of the belt clamp (if the lanyards are not long enough then multiple lanyards may be used)
- Make sure the lanyard is tight between the different isolation points
- Lock out all lanyards using an approved isolation lock and tag

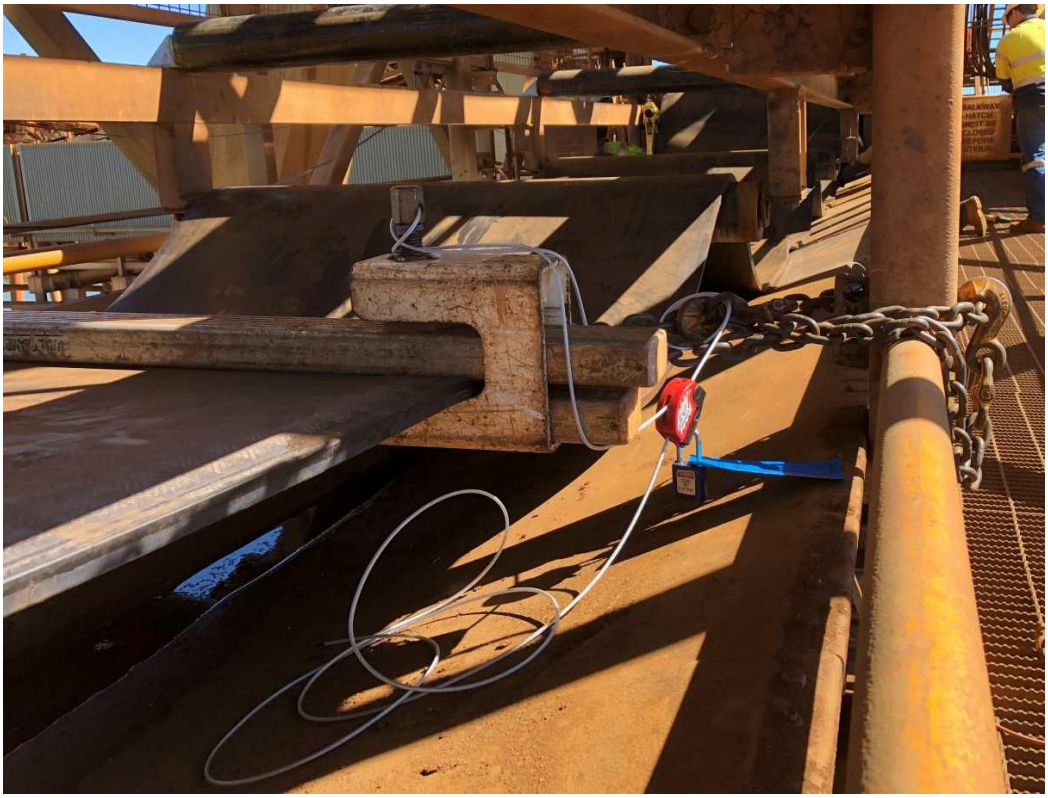
- The isolation point is a drilled hole, this will stop the clamps being undone
- The Isolation Officer must hang the isolation lock and tag in place
- The cable must be double wrapped around the shortener

Note: Excess from the shortener is doubled back to the main chain

- The hook end is chocked around the stringer for strength and behind the roller frame to stop movement.







11.5 Belt Movement

There are two main methods for controlling belt movement.

1. Exclusive control
2. Installation of Belt Clamp

When utilizing exclusive control to manage belt movement, only one task at any one time can be completed on the associated conveyor system, when the Exclusive Control is in place.

The use of Belt clamps can be selected as the primary control for belt movement, in cases that you do not want to limit the work activities on the entire conveyor system. Where belt clamps are to be used they must provide a positive isolation to a specific area and clearly identify this for all users.

Exclusive control must be in place prior to any of the following activities commencing, where belt clamps are not in place:

- Tensioning or de-tensioning belts (lifting or lowering counter-weights)
- Removal of anti-roll backs
- Pulling of belt (Belt change outs) or pockets of belt (Pulley change outs)
- Exclusion to the above will include, but not limited to;
- Use of Belt lifters to change idlers

11.6 Lanyard Isolations

A lanyard minor isolation is a minor isolation that utilises an approved adjustable cable lockout device to combine multiple isolation points into a single lock out point. These must be pre-approved isolation points as identified in this procedure. Only a Major Isolation Officer may assess and place lanyard isolations that are not identified in this procedure as approved Lanyard Isolations.

11.6.1 Situations lanyard isolations may be used in

- There are multiple isolation points in close proximity to each other
- The isolation points cannot be changed state, once a lockout device cable is fed through
- There are five (5) or less personnel required to work under the isolation
- The person raising the isolation is a Minor Isolation Officer and authorised for the equipment

11.6.2 Approved Lanyard Lockout Devices

11.6.3 Raising an Approved Lanyard Isolation

The Minor Isolation Officer must receive approval to take the equipment out of service from the equipment owner or person responsible for its operation.

The Minor Isolation Officer must identify the isolation points for the equipment.

The Minor Isolation Officer must operate each of the isolation devices and then feed the cable end through the points to be locked out, and then back through the lockout body in the direction indicated by the arrow on the device.

The Minor Isolation Officer must then tighten the cable of the lock out device to remove any slack and close the locking handle feature.

The Minor Isolation Officer must then physically confirm that each of the isolation points cannot be changed from their isolated state with the cable fed through them.

The Minor Isolation Officer must then place a red hasp onto the cable lock out device and secure it with a Yellow Isolation Lock and Blue Isolation Tag.

11.6.4 Approved Lanyard Isolations

Figure 10: Shiploader Long Travel Valves

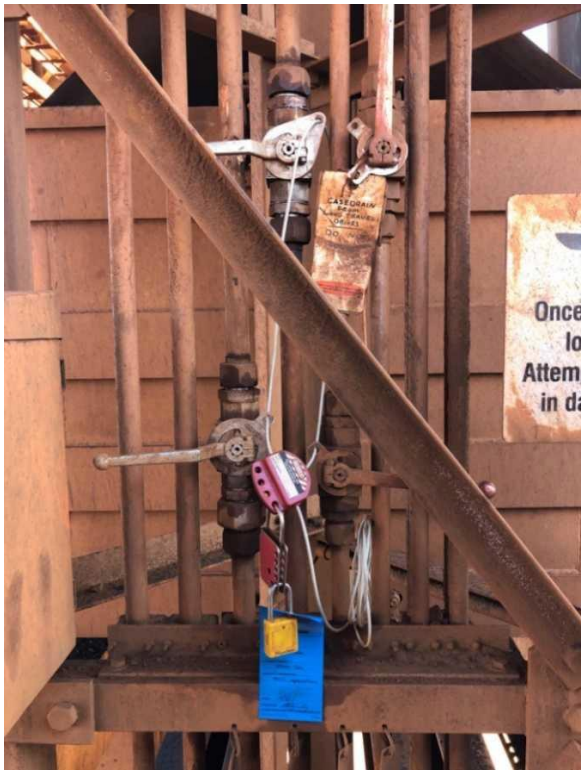


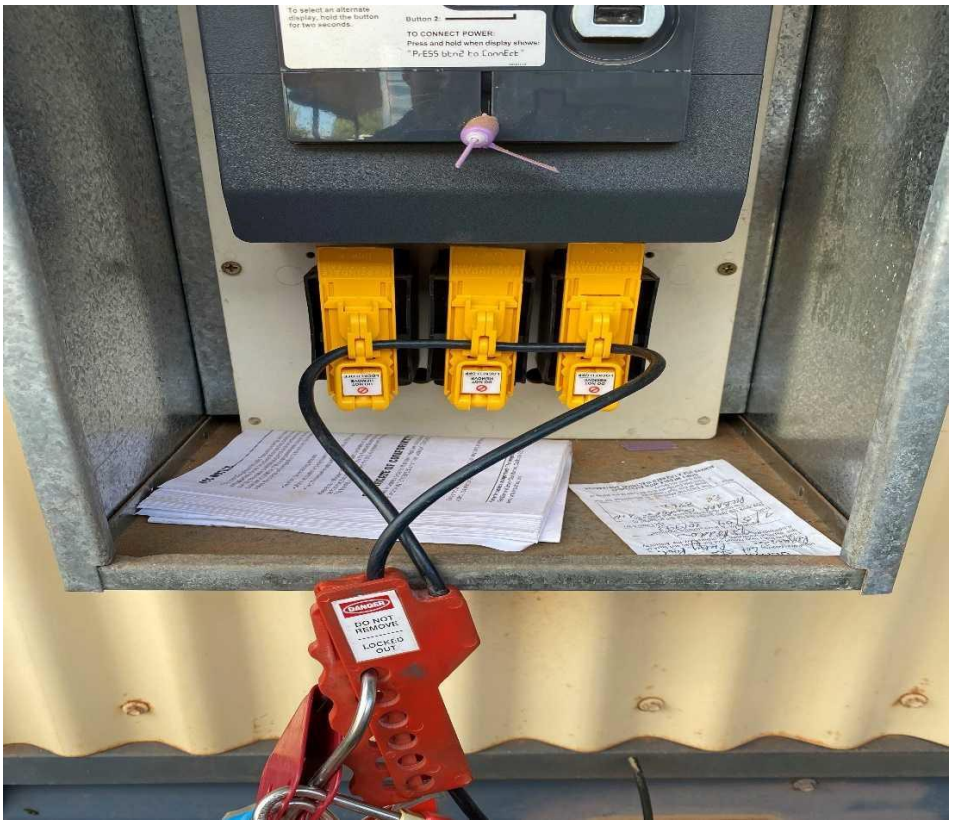
Figure 11: Shiploader HPU'S

Figure 12: Mobile Feed Hopper Train Tramming Drives, Cable Reeler and Hose Reeler

Figure 13: Mobile Feed Hopper Train Apron Feeders.

Figure 14: Bulk Liquid Berth Capstans

Figure 15: Housing Service Fuse



12. EXCLUSIVE CONTROL

12.1 Exclusive Control

Exclusive Control is required for live testing, maintenance, calibration, or commissioning of equipment. Prior to Exclusive Control being put in place, a task based risk assessment must be completed and approved.

An Exclusive control owner must be trained in the application of the Isolation & Tagging Procedure and exclusive control tags and bags.

Only one task can be performed under Exclusive Control at any one time.

The use of a spotter/s, if required, is to be determined by the task-based risk assessment.

Isolation Locks (personal danger or lockbox) must not be placed on an isolation point under exclusive control unless directed by the Exclusive control owner.

An Exclusive Control Owner must be a Pilbara Ports Task Supervisor.

An Exclusive Control Permit must be issued by a Major Isolation Officer.

When Exclusive control is carried out with the isolation point/s on or energised an Exclusive Control Bag must be fitted to the primary energy source/s or task site.

When exclusive control is applied to a lockbox, an Exclusive Control Bag must be placed on the lockbox with the current work crews locks on attached hasp.

When exclusive control is applied to a minor isolation point the bag must be hung at the location of the isolation point using the yellow isolation lock.

The work group must sign on to the Exclusive Control Permit at the lock box before commencing work.

Restricted Access Tape with Exclusive Control Tags must be placed at each task entry of task site. The tag must display “Exclusive Control” and contact numbers for day shift and night shift if applicable.

When Exclusive control is complete, the Exclusive Control (Task Supervisor) Owner must notify the Isolation Officer to remove the Exclusive Control.

Exclusive control may be conducted with the isolation point on, off, or isolated as identified by the risk assessment.

The Exclusive Control Owner must physically remain present during the task, if the task is continuing across multiple shifts, the exclusive control tag and/or bags must remain physically present on all relevant isolation points until such a time where the incoming Exclusive Control Owner has signed onto the permit and taken control of the task.

When the Exclusive control is being removed the Exclusive control owner for the task must confirm the area and equipment is safe for others to now use and potential stored energy is removed.

13. ISOLATION ERROR OR VIOLATION

An isolation error or violation is considered a serious event as there is potential that either:

- Someone is working on a piece of plant that has not been effectively isolated
- A piece of plant that is no longer being worked on has not been de-isolated
- A piece of plant that is not ready for service and has been de isolated, not out of service tagged or left in an unsafe state

When an isolation error occurs, the following process must be followed:

- Ensure there is no risk to personnel or equipment and contact the appropriate supervisor
- The person involved in or observing the suspected error or violation must initiate a standard Pilbara Ports Incident Report in the Hazard/Incident Management System, documenting the Incident Type as an Isolation Incident
- The Incident must be investigated using the standard processes applicable to the Pilbara Ports Incident Reporting and Investigation process

Examples of potential Isolation Errors are as follows:

13.1 Failure to Remove a Personal Lock or Tag

Refer to Forced Lock Removal Form in all instances where a person fails to remove their Personal Danger Lock when de-isolation is required.

The following process must be followed:

- The Isolation Officer must conduct a full inspection of the isolated equipment, and use tag, permit or lock register to identify lock holder and/or lock number
- Contact the lock holder or lock holder's supervisor and they must use all reasonable means to attempt to locate the person
- If the person is contacted and has left the work area, then they must return to the work area and must remove their Personal Danger Lock and Personal Danger Tag. The Isolation Officer must complete a report in Pilbara Ports Hazard/Incident Management System
- If the person cannot be located, cannot return to the work area due to having left the site or has Fitness for Work issues, then the Port Manager must be contacted and advised that the lock holder is unable to remove their lock via the appropriate means
- The Isolation Officer must gain verbal approval and confirmation from the Port Manager to remove the lock
- The lock and tag must then be removed, equipment de-isolated and the work area left in a safe condition

- The relevant Supervisor or Manager must raise an Incident Report in the Hazard/Incident Management System. Ensure the completed Forced Lock Removal Form is attached to the report notification

13.2 Failure to Transfer or Incorrectly Sign Off on a Permit Document as Task Supervisor or Permit Holder

Task Supervisor or Permit Holder

- The person's Supervisor must be contacted and must use all reasonable means to attempt to locate the person
- If the person is contactable and is able to return to the work area they must do so and complete the sign off of the Isolation Permit
- If the person is unable to return to the work area but can be contacted, they must be thoroughly questioned on the job ensuring that all tasks undertaken have been completed. Visual inspections of the work area must be undertaken by the new Permit Holder and Task Supervisor before being satisfied that the tasks are completed and able to be signed off. The new Permit Holder will then sign off the task and/or Isolation Permit as complete
- If the person is not contactable then their immediate Supervisor must be notified. That Supervisor must also make a reasonable attempt to contact that person. If still no contact can be made, then that person's Supervisor and the new Permit Holder are to carry out a visual inspection of the workplace to ensure all tasks have been completed. The relevant Port Manager is then to be contacted and informed about the situation and the outcome of the inspection. If satisfied, they can then grant permission for the Isolation Permit to be signed off on that person's behalf

Incident Report must be raised in Hazard/Incident Management System

13.3 Completed Tag Found Unattached

Any completed Tag found unattached to a piece of equipment is an Error within this procedure. If this occurs:

- The Person named on the Tag and their Supervisor must be contacted
- The status of the equipment must be determined and if the Tag Owner and Permit Holder are satisfied the Tag must be reattached or destroyed and new Tag attached by the person named on the tag

An Incident Report must be raised in Hazard/Incident Management System

13.4 Tag Missing from a Locked Personal Danger Lock

A person's tag may become detached for a number of reasons. These reasons include:

- Accidental removal by another person
- Damaged due to external influences e.g. weather

If it is known which lock/person the tag belongs to, the following must occur:

- Attach a Personal Danger Tag stating that "This tag replaces the Personal Danger tag of (*enter person's name*) whose tag has been accidentally removed"

- Include contact details of the person attaching substitute tag.
- Attempt to contact the person whose tag was removed and arrange for them to attach a new tag
- Remove the substitute tag after the new tag has been replaced

If it is not known which lock/person the tag belonged to, the following must occur:

- Attach a Personal Danger tag stating that “This tag replaces the Personal Danger tag of unknown person whose tag has been accidentally removed and is placed by (enter your own name)”
- Include contact details of the person attaching substitute tag
- Contact each of the Task supervisors to confirm that each member of their team is correctly tagged on. By process of elimination, you should be able to identify the missing tag holder
- When removing their lock, the lock owner must contact the owner of the substitute tag and have them remove the tag before removing the lock

For any of the above scenarios your Supervisor must be notified, and an incident report must be raised in the Pilbara Ports Hazard/Incident Management System.

13.5 Inability to Lock an Isolation Point

When the lockout mechanism on an isolation point is found to be broken or missing, where possible the mechanism must be repaired or replaced immediately. The mechanism must be made safe, and isolation must be verified.

If the isolation point is unable to be repaired or replaced immediately, other upstream isolation points must be considered, and isolation reviewed.

13.6 Key Misplaced or Missing

Conduct a thorough search of the working area to attempt to recover the lock key.

If the key is unable to be found, refer to Forced Lock Removal Form.

If the key cannot be found all associated locks must be destroyed and a new set made available with a new key.

13.7 Key Found

Any person finding a Personal Lock Key, Isolation Lock Box Key or Isolation Lock Key must immediately return the key to the Personal Lock Holder, Isolation Officer or Task Supervisor.

13.8 Lock Found

Any person finding a Personal Lock or Isolation Lock must immediately return the lock to the Personal Lock Holder, Isolation Officer or Task Supervisor.

13.9 Unexpected Movement or Discharge of Stored Energy

Unexpected movement of stored energy, such as belt movement of isolated plant:

- Stop all work immediately and ensure personnel are clear of area

- Report to Task supervisor for further investigation and action
- Record in Incident Management System

14. RESPONSIBILITIES

14.1 Port Manager

The Port Manager is responsible daily for the control and supervision of the delegated Port, staff and operations.

14.2 Line Managers

Responsible for ensuring their personnel are trained and competent in this procedure; responsible for enforcement of this procedure.

14.3 All Personnel

Responsible for ensuring they conduct their work in accordance with this procedure.

14.4 Electrical Governance Superintendent

The Electrical Governance Superintendent must, in writing:

- Nominate a person in each site operational area who will be responsible for appointing and authorising Isolation Officers, Verification Officers, and Competent Persons
- Appoint enough personnel as High Voltage Operators to enable High Voltage Isolations to be undertaken efficiently.
- Appoint High Voltage Isolation Assistants where required for operational areas.

14.5 Nominated Person

A person who is appointed in writing by the Electrical Governance Superintendent, and is responsible for appointing:

- Isolation Officers
- Verification Officers
- Bridging Officers

14.6 Isolation Officer

The Isolation Officer must:

- Design the Isolation Permit as per job requirements ensuring electrical and mechanical energies as well as potentially stored, kinetic and other forms of energy identified according to the scope of work
- Review and sign off Isolation Permits in accordance with the scope of work
- Accept requests for Isolation Permit and plans and ensure the documentation has been completed and signed off in accordance with this Isolation and Tagging Procedure
- Complete tags by entering appropriate information as contained in the appropriate JHA or Isolation permit
- Contact relevant parties (e.g. operations, contractors, proponents, and other supervisors) to inform of the intent to isolate

- The Isolation Officer identifies isolation points as per Isolation Permit and performs physical isolation. i.e. attaches locks, hasps and tags to correct Isolation points and signs Isolation documents
- Hand isolation list to Verification Officer and move away from physical location of isolations to allow uninterrupted verification of isolations
- Notify relevant parties if required (e.g. operations, contractors, proponents, and other supervisors) to enable equipment to be put in such state as to confirm and conduct a mandatory try step test in the field
- Ensure lockbox and paperwork where task is being completed is in a safe place
- Close the Isolation Permit by marking and signing the completion box on the Permit Completion section of the Isolation Permit
- De-isolate the plant as per the Isolation Permit once work has been completed or when instructed by the Permit Holder and all relevant paperwork is returned
- Contact relevant parties (e.g. operations, contractors, proponents, and other supervisors) to inform the equipment has been de-isolated
- Dispose of isolation/lockbox tags on completion of task

Note: In the event of an incident, tags must be retained and attached to isolation paperwork.

14.7 Verification Officer

A Verification Officer must:

Ensure that the isolations are in place and are in accordance with the request for Isolation Permit by:

- Witnessing the application of isolations
- Conducting isolation confirmation method themselves
- Or by determining from the Isolation Officer the method of confirmation used
- Confirm that the isolation points are locked and tagged with the Isolation Number and date recorded on each isolation tag.
- Sign Isolation Permits as verification that the isolation is in place

Note: High Voltage Switching may only be verified by a Verification Officer who also holds an Appointment as a High Voltage Switching Assistant or High Voltage Operator.

14.8 Task Supervisor

A Task Supervisor must

- Manage the work group and provide onsite supervision to a work group for the task/s
- Verify and confirm against the Isolation permit that isolation points are correct for the scope of works.
- Inspect the work and establish that all nominated equipment on the Isolation Permit is complete, equipment is assembled, guards are installed where applicable, equipment is safe to reinstate and ready for de-isolation, and housekeeping has been addressed
- Ensure all members of the work group remove Personal Locks and Personal Danger Tags from the lock box

- The Task Supervisor must check that personnel are clear of any plant or equipment and are aware of an impending start up
- Place an Out of Service tag on the equipment controls if required
- Ensure that if a change of Task Supervisor is to occur during the duration of the Isolation Permit, sign off the Isolation Permit and hand over task and/or work group in person to the new Task Supervisor

14.9 Permit Holder

A Permit Holder must:

- Have site, plant and task specific knowledge to enable them to check that the permit and isolation conforms to the request for isolation permit and that the equipment locked out is correct as per the Isolation Permit.
- Ensure that the isolations are in accordance with the Request for Isolation, either via the Isolation Permit or by viewing physical isolation points.
- Ensure that all Task Supervisors are aware of the isolations in place and confirm they cover the task being undertaken and ensure the Isolation Number is recorded on the Isolation Tags and on the permit.
- Confirms and signs Isolation Permits
- Confirm that all Task Supervisors have signed off the Isolation Permit with the status of the plant understood and Out of Service tags placed where necessary.
- Verify that all Personal Danger Locks and Personal Danger Tags have been removed from the lockbox and marks and signs the appropriate box on in the Permit Completion section of the Isolation Permit.

14.10 High Voltage Operator

To become eligible for authorisation, a person must be a qualified WA Licensed Electrician, refer to section 11.2 of the Isolation and Tagging Procedure. A person's site-specific competency must be determined through practical training and assessment.

The person must also:

- Produce documentation certifying satisfactory completion of a recognised training course in High Voltage Operations and
- Be appointed in writing by the Electrical Governance Superintendent

14.11 High Voltage Isolation Assistant

An individual trained and assessed as a competent High Voltage (HV) Isolation Assistant and authorised in writing by the Electrical Governance Superintendent

Personnel trained and assessed as competent HV Isolation Assistants may participate in the Isolation of HV Motors for works other than High Voltage Access. For example, mechanical work and cleaning of Utah Conveyors.

14.12 Work Group

The Work Group Must:

- Make contact with Permit Holder before applying lock and tag
- Place their Personal Danger Lock and Personal Danger Tag on the isolation point(s) as appropriate
- Remove their Personal Danger Lock and Personal Danger Tag upon completion of work
- Remove their Personal Danger Lock and Personal Danger Tag at the end of shift
- Remove their Personal Danger Lock and Personal Danger Tag if removed from the task
- Destroy Personal Danger Tag on completion of task
- Not remove another person's Personal Danger Tag or Lock
- Follow all instructions outlined on the JHA and/or Isolation Permit
- Sign on to the JHA
- Lock off the Isolation Lockbox to indicate that they will no longer be working under it

14.13 Substation Entry

Conditions of entry:

- Two (2) person entry for live electrical testing, one (1) of which must be a qualified Electrician
- HV switching requires either two (2) authorised HV Electricians or one (1) HV Electrician and one (1) standby person that has been trained as a HV assistant
- One (1) qualified Electrician/Electrical Engineer entry for VSD reset or substation inspections
- As a minimum requirement the stand-by person must be trained in LV rescue and basic life support
- An unauthorised third party requiring access into substations must be escorted by a Pilbara Ports qualified Electrician/Electrical Engineer at all times
- A trained and authorised third party may access substations without escort upon approval of the Area Electrical Supervisor

14.13.1 Motor Control Centre (MCC) Access

Conditions of entry:

- Two (2) person entry for live electrical testing, one (1) of which must be a qualified Electrician
- HV switching requires either two (2) authorised HV Electricians or one (1) HV Electrician and one (1) standby person that has been trained as a HV assistant
- Other personnel that require entry must be authorised by the site Electrical Supervisor.

15. LEVELS OF AUTHORITY FOR ISOLATIONS

The level of authority must be clearly defined and recorded in objective and hard copies kept in accordance with the Pilbara Ports Record Keeping Policy.

15.1 Appointments

Appointment Types;

- Minor Isolation Officer
- Major Isolation Officer
- Verification Officer
- High Voltage Isolation Assistant
- High Voltage Operator
- High Voltage Access Permit Issuer
- Nominated Person

All appointments must have the following documentation attached;

- Appointment Form
- Record of competency Assessment Form
- Observation and Demonstration of Competency Form (HR)
- Evidence as per the Isolation Officers Training Plan

16. EMERGENCY CONTACTS

In case of emergency, contact:

- **Port Hedland** VTS (East): (08) 9173 0030, or VHF CH 12 or 16.
- **Utah**: UHF CH 20 to contact Security or Control Tower via VTS (East) (08) 9173 0030
- **Dampier**: VTS on (08) 9159 6556 or VHF CH11 or 16 for Dampier/Ashburton or Shipping Control Tower

Electrical Governance Superintendent	0427 830 714
Health and Safety Director	0428 323 505
Port Manager Port Hedland East	0419 238 197
Electrical Supervisor East	0436 402 526
Port Manager Utah	0437 911 320
Electrical Supervisor Utah	0409 677 030
Port Manager Dampier	0415 697 290
Electrical Supervisor Dampier	0438 253 618
Port Manager Ashburton	0474 957 290
Electrical Supervisor Ashburton	0438 253 618

17. DEFINITIONS

TERM	DESCRIPTION
6 Hole Hasp	A device used to allow multiple locks to be attached to a Single Isolation Point, with up to 6 holes available for locks.
12 Hole Hasp	A device used to allow multiple locks to be attached to a lockbox, with up to 12 holes available for locks.
ALARP	As Low as Reasonably Practicable [ALARP] defines that wherever there is a risk present to people it must be balanced against the sacrifice needed to eliminate or reduce the risk. In any assessment as to whether risks have been reduced ALARP, measures to reduce risk can be ruled out only if the sacrifice involved in taking them would be grossly disproportionate to the benefits of the risk reduction
Area Owner	The Area Owner is the person responsible for the equipment or process at the time of isolation (usually the direct supervisor of the equipment operator).
Authority	A written permission given by the Port Manager and/or Electrical Governance Superintendent on matters relating to the Pilbara Ports Isolation and Tagging Procedure. **Note:** Refer to Hazard Management Procedure regarding sign off for residual risks.
Appointed Person	This appointment is made by a Nominated Person of Pilbara Ports in accordance with the Isolation and Tagging Procedure. The procedure outlines the formal appointment required to undertake those duties.
Appointment Form	A printed form generated under a procedure which appoints a person to the recorded role.
Appointment Register	An electronic register of all appointments, stored in the Pilbara ports Document Management System
Belt Clamp	A device designed to be applied to a Conveyor belt to ensure no movement of the belt can occur by any means.
Blue Exclusive Control Pocket	The Exclusive Control Permit is displayed at the lock box, isolation point, or equipment controls retained in a blue sleeve.
Competent Person	A person who has, to the satisfaction of the Nominated Person, acquired through a combination of training, education and experience, sufficient knowledge, and skill to enable them to be deemed competent to perform specific tasks safely and correctly.
Contractor	Any firm or any person not an employee of Pilbara Ports engaged / commissioned to do work on any Pilbara Ports site. Also known as a Vendor.
Contractor Supervisor	The competent person nominated to Pilbara Ports by a Contractor to accept responsibility for ensuring all Contractor's personnel follow this Isolation and Tagging Procedure, Pilbara Ports procedures and policies, including procedures related to permits.
Cyclone Tie-Down Coordinator	A person delegated as the coordinator as per the relevant site Cyclone Preparation

TERM	DESCRIPTION
Cyclone Recovery Coordinator	A person delegated as the coordinator as relevant site Cyclone Preparation Procedure Preparation Procedure. For Dampier and Ashburton contact the Maintenance Superintendent.
De-Isolate / Re-energise	Reconnect or enable an energy source to equipment.
Electrical Apparatus	Any electrical equipment, including overhead lines and underground cables, the conductors of which are live or can be made live.
Electrical Governance Superintendent	The individual responsible for nominating, authorising and appointing competent persons on all Pilbara Port sites.
Extra-Low Voltage	Not Exceeding 50 V a.c. or 120 V ripple-free d.c. (AS 3000: 2018 1.4.128).
Exclusive Control	The complete control of an area or isolation to the exclusion of everyone other than those listed on the Exclusive Control Permit.
Exclusive Control Owner	A person in control of the Exclusive Control area, the Task Supervisor.
Exclusive Control Permit	A printed form generated under the Isolation and Tagging Procedure which authorises the use of Exclusive Control.
Exclusive Control Tag	A printed tag used to communicate a message about the conditions of entry, status of equipment or any other relevant information.
Delegate	A person delegated in writing to undertake the responsibilities of a role.
D Hasp	A device used to allow multiple locks to be attached to a Single Isolation Point.
HV – High Voltage	Voltage in excess of 1000 v a.c. or 1500 v d.c. (AS 3000: 2018 1.4.128)
High Voltage Access Permit	A printed form generated under the High Voltage Access Procedure which authorises access to Isolated and Earthed (Dead) High Voltage Electrical Apparatus.
High Voltage Access Permit Point Lock (White)	Common keyed set of white locks placed on individual isolation points for the purpose of isolating a piece of plant or system of plant for the purpose of High Voltage Access.
High Voltage Electrical Apparatus	Any High Voltage electrical equipment, including overhead lines and underground cables, the conductors of which are live or can be made live.
HV Isolation Assistant	An individual trained and assessed as a competent High Voltage (HV) Isolation Assistant and authorised in writing by the Electrical Governance Superintendent
HV Operator	An individual trained and assessed as competent in the operation of High Voltage (HV) apparatus for the purpose of isolation and authorised in writing by the Electrical Governance Superintendent

TERM	DESCRIPTION
Information Tag	A printed tag used to communicate a message about the conditions of entry, status of equipment or any other relevant information.
Isolation	A means of preventing the transmission, build-up or unintentional release of pressure/energy/power by whatever means necessary to ensure that the plant or equipment is safe to work on.
Isolation Incident	Any non-compliance with the Isolation and Tagging Procedure.
Isolation Lock (Yellow)	A yellow lock used to lockout for the purpose of isolation.
Isolation Officer	A person who is trained and deemed competent and is appointed in writing by the Nominated Person to undertake the duties of Isolation Officer in accordance with Pilbara Ports Isolation and Tagging Procedure.
Isolation Permit	A control and assessment system used to ensure the safety of all personnel on the Pilbara Ports sites from injury caused by an uncontrolled release of energy whilst performing work on plant and equipment.
Isolation Point	An approved mechanism/device which controls the energy source for the purpose of isolating or de-isolating a piece of plant or system of plant. Note: Devices such as emergency stops, pull wire switches or any other devices associated with control systems must not be used as primary approved isolation points unless authorised by the Port Manager.
Isolation Register	An electronic or handwritten file register which contains all isolation information based on the request and permit requirements for isolations to be carried out. The Isolation Register must generate the isolation number for isolations.
Isolation Tag	A tag which is attached to all Isolation Points identifying the type of isolation, isolation number and lock box number where applicable.
JHA	Job Hazard Analysis (can also been known as Job Safety Analysis).
Lanyard Isolation	An isolation of more than one (1) isolation point utilising a lanyard to lock out several points for a minor isolation. These must be pre-approved isolation points as identified in this procedure. Only a Major Isolation Officer may assess and place lanyard isolations that are not identified in this procedure.
Lock Box	A lockable box that must be used in conjunction with Major Isolations for personnel to lock onto.
LV – Low Voltage	Exceeding extra-low voltage, but not exceeding 1000 v a.c. or 1500V d.c. (AS 3000: 2018 1.4.128).

TERM	DESCRIPTION
Maintenance Shift Log	An electronic register of occurrences during each shift period that is handed over to the following shift upon change over for information and actions if required.
Major Isolation	A Major Isolation should be used for: Complex jobs where a greater degree of control is required. Where the number of people working on a job exceeds five (5) and/or The number of isolation points required exceeds the requirements for a Minor Isolation. Isolation of High Voltage Equipment.
Major Isolation Officer	An individual who has completed the Minor and Major isolation training and has been approved to perform Major Isolations by the Registered Mine Manager and/or Delegate for Mine site areas, all other areas the Maintenance Manager.
Master Lock Box	A lockable box that must be used in conjunction with Major Isolations for personnel to lock onto that involves greater than twelve people (12) or more than fifteen (15) isolation point locks.
Minor Isolation	An Isolation where: There is one (1) isolation point or is covered by a lanyard isolation. There are five (5) or less personnel required to work under the isolation.
Minor Isolation Officer	An individual authorised to place a yellow isolation lock and Isolation Tag on a single isolation point for the intention of isolating the plant or equipment for less than 5 personnel.
Must	Indicates the requirement is mandatory.
Nominated Person	A person who has, to the satisfaction of the Electrical Governance Superintendent, acquired through a combination of training, education and experience, sufficient knowledge and skill to enable them to perform specific tasks safely and correctly and has been appointed in writing to act as Nominated Person. The Nominated Person must be responsible for appointing and authorising Isolation Officers, Verification Officers and deeming persons competent.
Out of Service Tag	A tag used to identify equipment which is faulty and/or dangerous and must not to be used or operated.
Permit Holder	A person who has acquired through a combination of training, education and experience, sufficient knowledge, and skill to enable them to perform specific tasks safely and correctly in that specific area; this person must undertake the duties of Permit Holder under an Isolation Permit.
Personal Danger Locks and Tag	A lock and tag applied by a person with the primary objective to provide personal protection to an individual working on plant and equipment. Must be removed at the end of each job or shift.
Personal Isolation	An Isolation where: There is one (1) isolation point and one person using the isolation and is an approved minor isolation officer.

TERM	DESCRIPTION
Personal Lock Holder	An individual competent and authorised to place a personal lock on a piece of equipment or lock box for the intention of working on that equipment / system. They must have completed the Pilbara Ports Personal Lock Holders Induction.
Pilbara Ports Controlled Sites	Work areas under the direct control of Pilbara Ports
Point Isolation Locks (Blue)	Common keyed set of blue locks placed on an individual isolation points for the purpose of isolating a piece of plant or system of plant.
Positive Isolation	An isolation where physical barriers have been put in place to isolate all forms of energy irrespective of changes in conditions.
Port Manger	The individual responsible for all Port activities, maintenance, and maintenance personnel on delegated sites.
Refresher Training	Refresher training on the Isolation and Tagging Procedure and systems to be undertaken every two (2) years or at a relevant time designated by the Electrical Governance Superintendent or Nominated Person.
Request for Isolation Permit	A detailed Request for Isolation Permit form indicating the area, equipment and isolation points needed to effectively de-energise or make a piece of plant safe. The Isolation Permit is compiled from the information contained within the Request for Isolation Permit.
Safe Approach Distance	The minimum separation in air from an exposed conductor that must be maintained by a person, or any object (other than insulated objects designed for contact with live conductors) held by or in contact with that person. Up to 22kV – 2.3m.
Safe Working Distance	The minimum safe approach distance for authorised personnel. Up to 22kV - 700mm.
Should	Indicates the requirement is recommended.
SWI	Standard work instructions are the written description of the safest, most efficient, and highest quality method for completing a specific task.
Task Supervisor	A person who has acquired through a combination of training, education and experience, sufficient knowledge, and skill to enable them to perform specific tasks safely and correctly in that specific area; typically, a tradesperson, team leader or supervisor. The Task Supervisor is responsible for the safe execution and completion of the work.
Verification Officer	A person who has completed the Verification Officer training and is deemed competent and is appointed in writing by the Nominated Person to undertake the duties of Verification Officer in accordance with Pilbara Ports Isolation and Tagging Procedure; this person must undertake the duties of Verification Officer under an Isolation Permit.

TERM	DESCRIPTION
Visitor	A person not intending to perform work. Visitors must be supervised at all times by a Pilbara Ports personnel member trained in Isolation and Tagging Procedures.
Yellow Isolation Pocket	The Isolation Permit is displayed at the lock box and is retained inside the Yellow Isolation Pocket, which as affixed to the lockbox using the Yellow Padlock.

18. DOCUMENT OWNER

The **General Manager Terminal Operations** is responsible for this **Procedure**.