HAZARDOUS ENERGY ISOLATION (FIXED PLANT) PROCEDURE

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### SUMMARY OF DOCUMENT REVISIONS

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1. PURPOSE
To establish methods for de-energising plant and equipment to prevent inadvertent operation or start up of equipment and or process, that may injure personnel, result in equipment damage and/or produce adverse effects on the environment.

2. SCOPE
This procedure applies to all Norton Goldfields personnel, contractor’s employees and subcontractor’s employees working across all operations that have the potential to come in contact with hazardous energy.

This procedure applies to hazardous energies sources such as, but not limited to, electrical, mechanical, hydraulic, pneumatic, chemical, radiation, thermal, compressed air and gas, energy stored by pressure, or tension in springs and ropes, and the potential energy from suspended parts (gravity) and equipment due to its position.

3. DEFINITIONS

2nd Authority
A level 2 or level 3 authorised person that witnesses and verifies lock box isolations

2nd Authority Tag
Indicates that the equipment isolation has been witnessed and proved as positively isolated by an authorised Level two (2) Isolator or level three lock box isolator (3)

Adhoc
One of isolation completed for a specific purpose

Authorisation
Authorisation is written permission by the Department Manager or his/her delegate for appropriately trained personnel to carry out specific duties.

Blue Isolation lock
Lock box security lock

Competent Person
A person that has demonstrated and been assessed to have the skill and knowledge necessary to perform a prescribed task in a safe and efficient manner.

Information Tag
Used to convey a message or instruction to the operator or user of the plant, equipment or machinery to which they are attached.

Isolation
Isolation is the physical act/s undertaken to prevent an uncontrolled flow or release of energy that has the potential to cause injury to personnel, or damage plant and equipment or have an adverse effect on the environment.
Isolation Tag
Instruction tag that indicates that the equipment is in a state that prevents the flow or release of energy.

Isolation lock
Brass AT stamped lock used for all single point isolations to achieve positive isolation. Used in conjunction with an isolation tag.

Isolation Permit
Controlled document containing the list of approved isolation points for a specific item of plant/equipment. Used by a level 2 Isolator and level 3 Permit Holder as a record to verify isolations when they have been placed. This document is also used in conjunction with a group lock box. Can only be amended by a level 3 Permit Holder.

Level 1 Personal Lock holder
Permitted to attach a personal lock and danger tag to a single isolation point (which has been isolated by a level 2 isolator or Level 3 Permit Holder) or Lockbox for the purposes of carrying out a task. Training for level 1 Personal lock holder will carried out as part of the Norton Goldfields General Induction. A level 1 personal lock holder shall not carry out single or multiple point isolations.

Level 2 Isolator
A competent person permitted to carry out single point and multiple point (low voltage) isolations whereby the number of isolations does not exceed 4 isolation points or 5 personnel carrying out work on the equipment. May act as 2nd Authority to a Level 3 Permit Holder when group isolations are being placed. To be deemed competent Level 2 Isolator training shall be undertaken.

Level 3 Permit holder
A competent person permitted to carry out single point and multiple point (low voltage) isolations whereby the number of isolations exceeds 4 isolation points, 5 personnel carrying out work on the equipment or a greater control is needed, complete group isolations in accordance with an Isolation permit/isolation permit, create adhoc Isolation permits. To be deemed competent level 2 & 3 training shall be undertaken.

Lock Box
Shall be the primary point to attach personal danger locks when the number of isolation points exceed 4, personnel working on the task exceeds 5 or there is a greater control needed.

Out of Service Tag
Indicates the plant/equipment is defective/damaged or repairs to equipment are incomplete.

Padlocks and Locking Devices
Padlocks and Locking Devices are items used that physically prevent the unintentional de-isolation of an energy source. Can be used to lock bleed/dump valves open.
Personal Danger Tag
Gives personal protection to people working on isolated plant, equipment or machinery.

Personal lock
Red lock used in conjunction with a personal danger tag. There shall only be one key for the set, no spare keys are to be cut.

Primary Point of Isolation
The primary point of isolation as close as practically to the energy supply. ie MCC

Purple Lock
A lock used solely by electricitons to secure out of service tags and isolations behind the panel.

Radiation Isolation Officer
A person who has undergone approved Radiation Isolation Officer training and has been deemed competent to de-energise and isolate radio-isotopes that are do not have damage to their housing.

Radiation Isolation Tag
The Radiation Isolation Tag is an information tag to inform personnel that a radiation device has been isolated and checked and that the device is safe to work near.

Radiation Safety Officer
A person who has undergone approved Radiation Safety Officer training and has been deemed competent to de-energise and isolate radio-isotopes.

Shall
Shall is to be interpreted as mandatory

Should
Should is to be interpreted as highly desirable but not mandatory

4. ROLES AND RESPONSIBILITIES

General Manager
Responsible for ensuring sufficient resources are available to implement this Procedure, including legislated obligations with respect to isolation of fixed plant.

HSE Manager
• Review this procedure every 2 years

Department Manager
• Ensure control measures in accordance with this procedure are implemented for all work under their control.
• Audit and monitor compliance with this procedure.
• Provide training to personnel.
• Conduct workplace inspections and task assessments to ensure and enforce compliance with this procedure

**Department Superintendent**
• Ensure control measures in accordance with this procedure are implemented for all work under their control.
• Audit and monitor compliance with this procedure.
• Conduct workplace inspections and task assessments to ensure and enforce

**Supervisors**
• Ensure control measures in accordance with this procedure are implemented for all work under their control.
• Audit and monitor compliance with this procedure.

**All Personnel**
• Shall adhere to this procedure whenever work is required on fixed/mobile plant
• Maintain their personal locks and danger tags in a satisfactory condition and report any deficiencies to their supervisor.
• Report all hazards associated with fixed plant isolations.
• Report all breeches of this procedure to their supervisor.

5. **PROCEDURE**

5.1 **Energy sources requiring isolation**

**Low Voltage Electrical Isolation**
Low voltage (less than 1000 volts) electrical isolations are carried out by level 2 isolators or Level 3 Permit Holders. Isolations behind electrical panels can only be carried out by an authorised electrician.

**High Voltage Electrical Isolations**
High voltage isolations must be carried in accordance with the High Voltage Safe Access and Isolation Procedure.

High voltage isolations may only be conducted by an Authorised High Voltage Electrical Isolator.

The issuing of high voltage access permits to work on high voltage equipment can only be done by an authorised person under the guidance of the High Voltage Safe Access and Isolation Procedure.

**Potential Energy Isolation**
Potential energy includes but is not limited to;
• gravity (risk of persons or objects falling),
• hydraulic pressure
• pneumatic
• magnetic forces
• tension
• chemical
• mechanical
• electrical
• radiation
• noise
• vibration
• steam
• thermal
• energy storing devices (batteries, flywheels, springs, accumulators, capacitors etc)

5.2 Types of tags and their use

• Out Of Service Tag

An Out of Service Tag is identified by a yellow background with black text.

An Out of Service Tag provides information on the status of non-operational equipment. It indicates that equipment shall not be used or operated, until the plant or equipment has been repaired and cleared by a competent person for safe operation.

The Out of Service Tag is designed to provide protection to plant and equipment. It indicates that: The equipment is defective/inoperable or the repairs to the equipment are incomplete.

It is important to note that the Out of Service Tag does not provide any specific personal protection. It does not prevent competent personnel, who are conducting repairs to the equipment, from operating or testing the equipment for the purpose of completing the repair works.

• Authority to use an “Out of Service” Tags

Any person who finds a fault with a piece of plant or equipment, which creates an unsafe or inoperable condition, and requires repair or attention, can place an Out of Service Tag. This person may be any employee or contractor to site.

An Out of Service Tag shall be used by any person who has cause to leave a piece of plant or equipment in an unsafe or inoperable condition, which if operated could cause damage or indirect injury.

• Correct Use of an “Out of Service Tag”

This tag is not suitable for the purpose of isolation. An Out of Service Tag is securely affixed to the primary point of isolation or prominent position. The person placing the Out of Service Tag will complete the tag with the following information in clear legible print using a permanent marker, prior to attachment:

• Name of the person. Nicknames shall not to be used.
• Date the tag was placed.
• Reasons(s) for placing the tag
• Equipment description.

It is not explicitly required to provide any additional locking facility with the Out of Service Tag. The person placing the Out of Service Tag must also contact the appropriate personnel (eg control
Tags are to be disposed of by pulling out the eyelet, tearing the tag in two.

- **Isolation Tag**

  An Isolation Tag is identified by black print on a bright orange background with the word ‘Isolation’ on both sides.

  An Isolation tag is used to confirm that an item of equipment has been isolated from all sources of energy and that the equipment is safe to work on.

  - An Isolation Tag shall be used for all fixed plant isolations

In these circumstances no work shall proceed unless equipment has been isolated, tagged and locked out where appropriate by a level 2 Isolator.

An Isolation Tag indicates that a Level 2 isolator or Level 3 Permit Holder has isolated a particular piece of equipment. The Isolation Tag shall be placed prior to anyone attaching their Personal Danger Tag and lock.

An Isolation Tag shall be applied with a brass (AT) lock or lock box lock to the isolation point.

- **Authority to Use an “Isolation” Tag**

  Isolation Tags shall only be placed or removed by Level 2 or Level 3 isolator.

- **Correct Use of an “Isolation” Tag**

  The Isolation Tag is to be filled out with the following details in clear legible print, prior to attachment:
  - Date
  - Name of the Level 2 isolator or Level 3 Permit Holder.
  - Time
  - Reason
  - Department
  - Signature
  - Work Permit/Lockbox number (Where applicable)
  - Details of equipment isolated

Where work on equipment bearing an Isolation Tag is incomplete at the end of shift, the tag is to be left in position and an Out of Service tag attached stating the reason. Isolation Tags shall be placed on the primary points of isolation. Isolation Tags shall remain in place with the isolation lock.
• **Removal of an “Isolation” Tag**

Any Level 2 Isolator or level 3 Permit Holder authorised in that area of plant may remove an Isolation tag. An Isolation tag shall only be removed by a Level 2 isolator or level 3 permit holder after all Personal Danger tags and Out of Service tags have been removed from the isolation point. Unauthorised removal may be subject to disciplinary action. Tags are to be disposed of by pulling out the eyelet and placing it in a bin.

• **2nd Authority Tag**

A 2nd Authority tag is identified by black print on a purple background, with the words “2nd Authority Isolation Verification Tag” printed on the top.

The tag is placed by a level 2 Isolator or Level 3 Permit holder when witnessing and confirming isolations placed by a Level 3 Permit Holder for group isolations.

A 2nd Authority Isolation Tag indicates that a Level 2 Isolator or Level 3 Permit Holder has witnessed and confirmed that positive isolation has been achieved by a level 3 permit holder on a particular piece of equipment. The 2nd Authority Tag shall be placed with the orange Isolation Tag prior to anyone attaching their Personal Danger Tag and lock.

• **Authority to Use a 2nd Authority Tag**

2nd Authority Tags shall only be placed or removed by Level 2 Isolator or Level 3 Permit Holder.

• **Correct Use of a 2nd Authority Tag**

A 2nd Authority tag is used to confirm that a Level 2 Isolator or Level 3 Permit Holder has witnessed and confirmed that positive isolation has been achieved by a Level 3 Permit Holder on a particular piece of equipment. The 2nd Authority Tag is to be filled out with the following details in clear legible print, prior to attachment:

- Name of 2nd Authority
- Department/Company of the Level 2 Isolator
- Equipment/Plant
- Lockbox
- Signature
- Date and time

Where work on equipment bearing an Isolation Tag and 2nd Authority Tag is incomplete at the end of shift, the tag is to be left in position and an Out of Service tag attached stating the reason. Isolation Tags are to be placed on the primary points of isolation. Isolation Tags shall remain in place with the isolation lock.

• **Removal of a 2nd Authority**

Any Level 2 Isolator or Level 3 Permit Holder deemed competent for that piece of equipment or area of plant may remove an Isolation tag and 2nd Authority tag. An Isolation tag and 2nd Authority tag shall only be removed by a Level 2 Isolator or Level 3 Permit Holder after all Personal Danger tags and Out of Service tags have been removed from the isolation point. Unauthorised removal may be subject to disciplinary action. Tags are to be disposed of by pulling out the eyelet, tearing the tag in two and placing it in a bin.
• **Personal Danger Tag**

A Personal Danger Tag is identified by black print on a red and white background with a red ‘Danger’ symbol. Personal Danger Tags are of the disposable type allowing for details of name, date, time and department to be written on the tag.

A Personal Danger tag provides protection for personnel while working on plant or equipment. These tags warn others that by re-activating or re-energising that equipment whilst the tag is present, serious harm or injury could be caused to the person who placed the tag. No person shall de-isolate, or operate any switch, valve or other piece of equipment whilst there is a Personal Danger Tag in place.

• **Correct use of a “Personal Danger” Tag**

A Personal danger tag will be used in every case where there is a risk of injury to personnel working on plant or equipment. The Personal Danger Tag shall be used at all times by the person performing the task. The Personal Danger Tag is placed once the equipment has been isolated, and prior to commencing the task. The tag is placed on top of an Isolation Tag in the following circumstances:

- All isolations performed in surface locations
- All isolations that involve more than one point of isolation to make the equipment safe

In the following circumstances a Personal Danger Tag may be placed without an Isolation tag being present:

- Underground, single point isolations in which the person isolating the energy source is the person that will be working on the isolated equipment. If more than one person is to work on the equipment, then each must attach their own Personal Danger Tag to the primary point of isolation and ensure that the equipment is isolated.

The Personal Danger Tag will remain at the isolation point until the person who places the tag removes it.

• **Authority to Use a “Personal Danger” Tag**

Any person on site, who requires the application of the tag to ensure their personal safety while performing a task on equipment that has been isolated, can use a Personal Danger Tag. Level 1 Personal lock holder training will conducted as part of the general and contractors induction.

• **Placing Your Personal Danger Tag**

Personal Danger Tags must be completed in clear legible printing with;

- Full Name
- Date
- Time and department/company.
- Equipment being worked on

Personal Danger tags shall be placed by all personne who are required to work on the isolated plant/equipment. Personal Danger Tags shall be secured to the designated isolation point with a red personal lock. Personal Danger Tags may alternatively be attached with a red personal lock to a
lock box when there is more than 4 isolation points or the number of personnel working on the task exceeds 5.

Where there is a need for up to 5 people to apply a lock and tag to the same isolation point, the lock and tag shall be applied to the isolation point by multi-lock hasp or alternatively a lock box can be used.

Each person must physically place his or her own Personal Danger Tag. They must not request or allow another person to do this for them.

- **Removing Your “Personal Danger” Tag**

In any of the following circumstances each person must remove their own Personal Danger Tag:
- when the job is complete,
- at the end of his/her shift,
- when the person leaves the job incomplete to attend to other tasks, or for any other prolonged period.

The person who attaches a Personal Danger Tag is the only person who may remove the tag, other than by the procedure described in the section below. Should any other person be found removing a Personal Danger Tag which is not his or her own, disciplinary action may be taken, which may include dismissal.

After removing the Personal Danger Tag, and if the job is still incomplete, the person must ensure that an Out of Service Tag is attached to the equipment at the isolation point and on top of the Isolation tag. A description on the Out of Service tag must detail the reason that the equipment must stay isolated.

Personal Danger Tags must be destroyed by pulling out the eyelet and tearing the tag in two.

- **Failure to Remove a “Personal Danger” Tag**

If an Employee is absent for a short duration on work connected with the job (collecting tools, parts, lunch breaks etc) the Personal Danger Tag may remain in place.

No Employee shall remove another person’s Personal Danger Tag. If an employee has left site and failed to remove their Personal Danger Tag, the following shall be carried out in all instances by the immediate Supervisor / Shift Supervisor;
- A Personal Danger Tag Removal Form shall be raised (see attachment).
- A check to verify that the Employee has left the work site.
- An attempt made to contact the Employee and request that they return to work (without pay) to remove their Personal Danger Tag.

**Important to note:**

Employees are not permitted to give a verbal authority to have their lock and tag removed, the employee shall return to site to remove their lock and tag. The employee shall ensure that they adhere to the Norton Goldfields Fitness for work guidelines when returning to site.
• If the Employee cannot be contacted, check to make sure that the person is not in, on, or about any machinery, equipment, tank, vessel etc and that all equipment is totally non-hazardous.

• Notify the Department Superintendent who may:
  o Attend site and remove the Personal Danger Tag in accordance with the Personal Danger Tag Removal Form.
  o Delegate to an authorised person, who may remove the Personnel Danger Tag on his behalf.

The original Personal Danger Tag shall be stapled to the Personal Danger Tag Removal Form, handed to the Department Superintendent of the person whose Personal Danger Tag was removed and an incident shall be raised.

The Personal Danger Tag Removal Form may be placed in the Mines Inspection Record Book after completion of the investigation if in the Superintendent’s opinion the incident had the potential to cause serious injury or harm.

The Incident Report will be circulated in the normal manner after the investigation and analysis is completed.

• **Accidental Removal of Personal Danger Tag**

If while removing your own Danger Tag, or for whatever reason, you have accidentally removed and destroyed someone else’s Personal Danger tag, the following actions must be taken:

- Place your own Personal Danger tag with all details completed in clear legible printing.
- Locate the person whose tag you have removed and destroyed and have them complete a new Personal Danger Tag and attach.
- Only once their tag has been attached may you remove your own.
- Report the incident to your Supervisor / Shift Supervisor and submit report as per Norton Goldfields incident reporting process.

• **Lost key**

In the event an individual looses their key and their Personal Danger lock is attached to an isolation point or lockbox, the following process shall apply

- Employee shall notify supervisor immediately.
- A Personal Danger Tag Removal Form shall be raised (see attachment) and signed by the individual and the supervisor.
- Both the supervisor and the individual shall remove the lock with a pair of bolt cutters.
- Raise an incident

Once a key has been lost the remainder of the locks in the set can no longer be used, the set shall be surrendered to the supervisor and a replacement set issued.

• **Radiation Isolation Tags**

Radiation Isolation tags can only be used by authorised Radiation Safety Officer. Under no circumstances shall an Isolation Tag be placed on a radiation device prior to the placement of a Radiation Isolation Tag.
In the event that a radioactive device is damaged, the area is to be appropriately barricaded to ensure no other personnel can enter the area until the Radiation Safety Officer has assessed the situation and authorised re-entry.

Radiation Isolation Tags shall only be removed following the removal of the Isolation Tag.

Radiation Isolation Tags shall be fastened securely so they will not become detached.

Tags are to be disposed of by pulling out the eyelet and placing in the bin.

- **Information Tags**
  
The Information tag is blue and white. Any person familiar with the equipment may attach an information tag.
  
  This tag may be used to identify equipment requiring future maintenance or other general information about the status of the equipment.

The use of this section of the tag is optional and designed solely to aid communication if required.

This tag shall not be used for any other purpose other than providing information regarding the status of the operational equipment.

Tags are to be disposed of by pulling out the eyelet

### 5.3 Padlocks & Lock Out Devices

Padlocks and / or Lock Out devices shall be used where;

- specified in Safe Working Procedure or other site procedures.
- where a risk assessment identifies the requirement for an added precaution during isolation.

Padlocks and / or Lock Out devices may also be used where deemed necessary at the discretion of the Level 2 Isolator.

- **Level 1 Personal Lock**

  Level one locks are a set of 4 red personal locks keyed alike, issued with re-usable personal (photo) danger tags to permanent NGF employees upon completion of level one personal lock holder training. Single level one locks are available for contractors who neglect to supply their own.

- **Authority to Use a Personal Lock**

  Any person on site who has attended a general site or contractors induction and successfully completed the level one lock holder training can use a level 1 lock in conjunction with a personal danger tag.
• **Level 2 Isolation Lock**

  A level 2 isolation lock is a brass keyed alike. This lock is used for both single and multiple isolations not exceeding 4 isolation points or 5 employees working on a task. The lock must be applied with an approved hasp and orange isolation tag.

  **Authority to Use a Level 2 Isolation Lock**

  Any person who has attended a general site or contractors induction and successfully completed the level one lock holder and Level 2 Isolator training can use a level 2 isolation lock in conjunction with an isolation and 2nd authority tag.

• **Removal of a level 2 Isolation lock**

  Any Level 2 Isolator or Level 3 Permit Holder deemed competent for that piece of equipment or area of plant may remove an Isolation lock and tag. An Isolation lock and tag shall only be removed after all Personal Danger tags and Out of Service tags have been removed from the isolation point. Unauthorised removal may be subject to disciplinary action.

• **Level 3 Lock Box Security lock**

  The level 3 are for locking the the lock boxes. All locks are keyed alike. Level 3 trained personnel are to hold the lock box key and will be issued a key upon successful completion of level 3 lock box training.

• **Electrical security lock**

  A lock used solely by electricitians to secure out of service tags and isolations behind the panel.

5.4 **Breach of the isolation procedure**

Evidence of the following will be considered a breach of the Hazardous Energy Isolation Procedure. Disciplinary action will match the severity of the action taken and be dealt with in accordance with the Norton Goldfields Fair Treatment Review Policy, examples of which include but are not limited to:

• Operating equipment with tags in place.
• Removing another person’s Personal Danger Tag
• Placing or removing tags out of sequence
• Commencing work on a system without applying a personal lock and tag
• Commencing work on equipment which has not been isolated
• Failing to remove Personal Danger Tags upon job or shift completion.
• Using tags for any other purpose.

5.5 **Special Variations Of The Equipment And Isolation Process**

For specific occasions when the magnitude of the job or the complexity of the job makes the implementation of Hazardous Energy Isolation Procedure impracticable the General Manager may give approval to prepare Safe Work Instruction. A risk assessment needs to be conducted in determining adequate control measures. The Safe Work Instruction must provide protection equal...
to that in the Hazardous Energy Isolation Procedure. Prior to adoption, the Department Manager will approve the Safe Work Instruction and ensure all relevant personnel are adequately trained.

5.6 Non Destroyed Tags

In the event of a Employee or Supervisor / Shift Supervisor discovering either an Isolation Tag or Personal Danger Tag that has not been destroyed, it is to be treated as an unintentionally removed tag and the procedure below is to be followed:

- Check details of the tag paying particular attention to the name, date and department detail.

- The Employee whose name appears on the tag is to be contacted for confirmation on the status of work for which the tag has been placed and will either replace the tag or destroy it.

- If contact cannot be made with the Employee concerned then contact the Supervisor / Shift Supervisor responsible for the Employee who will determine if the tag is to be replaced or destroyed.

- If the Employee and Supervisor / Shift Supervisor cannot be contacted, contact the Departmental Superintendent responsible.

- The Departmental Superintendent is to continue attempts to contact the Employee and the Supervisor / Shift Supervisor until the status of work has been confirmed and the Tag either replaced or destroyed.

5.7 Conducting an Isolation – Fixed Plant Single Point Isolations

- Shutdown plant and equipment and identify all sources of energy which require isolating.
  Note: Shutdown is merely the process of de-energising equipment, it is not positive isolation.

- All isolation of energy sources (including electricity, compressed air, ionising radiation etc.) must be isolated at the source for that particular process before personnel commence work. The isolation must ensure that all reasonable steps have been taken to ensure an energy release cannot occur.

- A Level 2 Isolator shall then place a brass AT lock and an orange Isolation Tag on the isolation device.

- In the event of work being carried out in an area where ionising radiation would normally be present, a Radiation Safety Officer or Radiation Isolation Officer shall isolate and check the relevant radiation device and place a Radiation Isolation Tag on the device shutter prior to the Authorised Tagger placing the Isolation Tag.

- A starter button, controller, emergency trip switch or any other non mains isolating switch shall not be considered a switch for isolation purposes. Isolations are only to be performed at the primary point of isolation.
• When less than 5 personnel are required to work on or in equipment, they will each place their own Personal Danger Tag and lock on the appropriate isolation device after the equipment has been isolated with a brass level 2 lock and an isolation tag.

• No person shall operate or by-pass a tagged isolation point.

• If repair work is incomplete at the end of a shift, each person will remove his or her Personal Danger Tag from the appropriate isolation device. The orange Isolation Tag shall be left in position on that piece of equipment and the yellow Out of Service Tag detailing the reason attached to prevent the device from being de-isolated and placed back into service.

• After work is completed, all Personal Danger Tags are to be removed by the personnel who placed them. Orange Isolation Tags are only to be removed by A Level 2 Isolator or level 3 Permit Holder.

• If any person fails to remove their Personal Danger Tag/s when work is completed then the procedures for Removal of Personal Danger Tags shall apply.

• All electrical isolations will be performed in the MCC/Sub Stations, unless appropriate mains isolating devices are installed at the location.

• All mechanical isolations take place in the field.

5.8 Conducting an Isolation – Fixed Plant - Multiple Point Isolations

• A Level 3 Permit Holder shall raise the isolation permit, review isolation permit and verify isolations are ready for task.

• Shutdown plant and equipment identify all sources of energy which require isolating. Note: Shutdown is merely the process of de-energising equipment, it is not positive isolation.

• All isolation of energy sources (including electricity, compressed air, ionising radiation etc.) must be isolated at the source for that particular process before personnel commence work. The isolation must ensure that all reasonable steps have been taken to ensure an energy release cannot occur.

• Obtain the Isolation Permit, and proceed to the primary point of isolation and commence the isolation process with the assistance of a 2nd Authority.

• A Level 3 Permit Holder shall then place an orange Isolation Tag and lock on the isolation device,

• A 2nd Authority will verify the isolation by “checking for dead” and will apply a 2nd Authority Tag to the isolation once the isolation has been verified and checked.

• In the event of work being carried out in an area where ionising radiation would normally be present, a Radiation Safety Officer or Radiation Isolation Officer shall isolate and check the
relevant radiation device and place a Radiation Isolation Tag on the device shutter prior to the Authorised Tagger placing the Isolation Tag.

- A starter button, controller, emergency trip switch or non-mains isolating switch shall not be considered a switch for isolation purposes. Isolations are only to be performed at the primary point of isolation.

- Once all isolations listed on the permit have been completed the Level 3 Permit holder is to inform the task supervisor and sign the handover section of the permit acknowledging that the all isolations are complete and the task supervisor has been notified. The task supervisor is now in charge of the isolated equipment.

- All personnel working on the equipment are required to place their personal danger lock and tag on the completed lockbox.

- No person shall operate or by-pass a tagged isolation point.

- If repair work is incomplete at the end of a shift, each person will remove his or her Personal Danger Tag from the lockbox. and place the yellow Out of Service Tag detailing the reason attached to prevent the device from being de-isolated and placed back into service.

- After work is completed, all Personal Danger Tags are to be removed by the personnel who placed them.

- If any person fails to remove their Personal Danger Tag/s when work is completed then the procedures for Removal of Personal Danger Tags shall apply.

- Once all personal danger locks and tags have been removed from the lockbox and the equipment is ready to be returned to service, the task supervisor is to notify the processing supervisor and complete the handback section of the Isolation permit. The handback section of the permit must be completed before any de-isolations are to take place.

- Once all lockbox locks are remove they must be placed back into the lockbox and be locked with the blue security lock.

6. RECORD KEEPING
All completed permits shall be returned to the Snr Safety Co-ordinator for filing. Permits shall be made available for 7 years following completion.

7. REVIEW
A review shall be carried out to ensure the content of this procedure is still applicable, current and practicable. A review should take place:
   a. Whenever the process/equipment changes
   b. At a periodic frequency (<2 year)
   c. At incident investigation.
8. REFERENCES
   • Mines Safety and Inspection Act 1994
   • Mines Safety and Inspection Regulations 1995

9. RELEVANT DOCUMENTATION
The following documentation may be utilised or referenced to comply with the requirements of this procedure.
   • Safe Work Australia Code of Practice Managing The Risks Of Plant In The Workplace 2012
   • Department of Minerals and Petroleum Guide to Isolation and Tag Out HIF Audit
   • Worksafe WA Guidance Note Isolation of Plant 2010
PERSONAL DANGER LOCK AND TAG REMOVAL FORM

This form is to be used when an individual has left a “Personal Danger Lock and Tag” in place and has left site or lost their key to a personal isolation lock.

Date: __________________________ Day: __________________________ Time: __________

Equipment: ____________________________________________________________

Name on tag: __________________________________________________________________

Remarks: ____________________________________________________________________

Personal lock and tag left on (Section 1) ☐  Lost Key (Section 2) ☐
(Tick appliable box)

Section 1

Tick boxes  Yes  No
I have checked to verify that the individual has left the work site.  ☐  ☐
I have attempted to contact the employee.  ☐  ☐
I have contacted the employee who is unable to return to work to remove tag.  ☐  ☐
I have been unable to contact individual.  ☐  ☐
I have physically checked to make sure that the employee is not in, on or about any machinery, equipment, tank vessel etc and have reason to believe that the employee is not at the work site.  ☐  ☐

1. Reason for non-return:_______________________________________________________

2. Reason for non-contact:_________________________________________________

Superintendent (or nominee)_________________________________________________

Signed:_________________________________________Date: ___________ Time: __________

Employee name:_______________________________________Signed:____________________

Department: __________________Date:__________ Time: ________________

Signed Processing Manager:______________________________________________

Date: ________________________________ Time: ________________________________

____________________________________________________________________________

Section 2

I,___________________________________________________ have lost the key belonging to my personal isolation lock. I have completed my task on _______________________________. (enter plant/equipment).

I authorise___________________________________, shift supervisor to cut my personal lock and tag away from the isolation in my presence.

Signed:

Employee_________________________________Supervisor_________________________

Date:_______Time:__________
Appendix 2
Isolation Permit
## ISOLATION PERMIT

### LOCKBOX LABEL

<table>
<thead>
<tr>
<th>STEP</th>
<th>CODE</th>
<th>ISOLATOR INITIALS</th>
<th>ISO AUTHORITY INITIALS</th>
<th>ISOLUTION DESCRIPTION</th>
<th>SUBS LOCATION</th>
<th>EQUIPMENT DESCRIPTION</th>
<th>DE-ISO AUTHORITY INITIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LO, CI</td>
<td>Traffic Lights – NO DUMP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>LO, CI</td>
<td>ROM bin Fence Barricade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>LO, CI</td>
<td>ROM bin access Pad Retracting Barricade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>LO, CI</td>
<td>ROM bin spray water valve</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>LO, CI</td>
<td>Primary crusher – Drive Motor</td>
<td>CRUSHER MCC</td>
<td>310 CG01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>LO, CI</td>
<td>Apron Feeder – Drive Motor</td>
<td>CRUSHER MCC</td>
<td>310 FD01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>LO, CI</td>
<td>Dust Extractor – Drive Motor</td>
<td>CRUSHER MCC</td>
<td>310 DE01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>LO, CI</td>
<td>Stockpile feed conveyer – Drive Motor</td>
<td>CRUSHER MCC</td>
<td>310 CV01</td>
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</table>

### CODES

- CI - TAGGED
- LO - LOCKED OUT
- OT - TAGGED OPEN
- SP - SPADED
- OCL - LOCKED CLOSED
- OA - AIR DISCONNECTED
- DT - DISCONNECTED & TAGGED
- CT - TAGGED CLOSED

**I HAVE WITNESSED THE ISOLATION OF THE ABOVE NOMINATED EQUIPMENT, THE CORRECT TAGS AND LOCKS ARE ATTACHED AND THE LOCKBOX IS SECURE**

**NAME:**

**SIGNATURE:**

**AUTHORISED ISOLATOR**

**NAME:**

**SIGNATURE:**

### 2ND AUTHORITY

**NAME:**

**SIGNATURE:**

### EQUIPMENT HANDBOVER TO TASK SUPERVISOR (Authorized isolator)

**NAME:**

**SIGNATURE:**

**DATE:**

Authority is now given for the task associated with this permit to be carried out. All equipment has now been handed over and is in control of the task supervisor. The task supervisor has been notified.

### EQUIPMENT HANDBACK TO PROCESSING SUPERVISOR

**MECHANICAL TASK SUPERVISOR (IF APPLICABLE):**

**NAME:**

**SIGNATURE:**

**DATE:**

**ELECTRICAL TASK SUPERVISOR (IF APPLICABLE):**

**NAME:**

**SIGNATURE:**

**DATE:**

All task/s associated with this permit have been completed, the equipment and work area are clean and free from hazards. All personnel danger locks and tags have been removed and equipment is ready to be returned to service. The Processing supervisor has been notified of the completion.

### PERMIT CANCELLATION

**I have inspected the isolated equipment and satisfied it is safe to be de-isolated. I have checked that all locks and tags have been returned to the lockbox. I hereby cancel this permit.**

**NAME:**

**SIGNATURE:**
LEVEL 2 ISOLATION

UP TO FOUR (4) ISOLATION POINTS, UP TO FIVE (5) PEOPLE REQUIRED TO WORK ON THE EQUIPMENT

Level 2 Isolator identifies all hazardous energy sources associated with equipment to be worked on

Isolate hazardous energy sources using the LOCK, TAG TRY method. All isolation points must have an (AT) lock and isolation tag attached

Isolate at an alternative point that will provide the same level of protection and test to ensure it is positively isolated

All isolations tested positive

Inform personnel where to place their personal danger lock and tag
APPLY LEVEL 3 ISOLATION PERMIT

THERE ARE MORE THAN FIVE (5) PEOPLE LOCKING ON TO AN ISOLATION POINT, MORE THAN FOUR (4) ISOLATIONS FOR THE TASK OR THERE IS A GREATER SECURITY REQUIRED

Level 3 isolator raises isolation permit and verifies all isolations required are listed

Level 3 isolator to raise isolation permit template

NO

Permit Available

YES

Level 3 isolator to hand write additional isolations points required on permit and have approved by supervisor

NO

Are all isolations listed?

YES

APPROVED

Level 3 isolator isolates each piece of equipment listed, using the Lock, Tag, Try method then initials permit confirming each isolation.

2nd Authority verifies all isolations are positive and applies 2nd Authority tag to isolation points and initials permit confirming each isolation

ALL ISOLATIONS LISTED COMPLETED

Level 3 isolator and 2nd Authority complete name and signature on permit to acknowledge all isolations have been completed

Level 3 isolator to sign the EQUIPMENT HANOVER section to acknowledge they have advised the task supervisor that equipment is now ready for maintenance

Work can now commence on isolated equipment
LEVEL 3 ISOLATION PERMIT CANCELATION

MAINTENANCE WORK COMPLETE

Task supervisor notifies processing supervisor that the task is complete and signs the HANDBACK section of the isolation permit

Level 3 Isolator obtains isolation permit

No isolations are to be de-isolated

NO

Processing supervisor to notify task supervisor and have HANDBACK completed

YES

Level 3 isolator de-isolates and initials each piece of equipment listed on the isolation permit

ALL ISOLATIONS LISTED DE-ISOLATED

Level 3 fills out the PERMIT CANCELLATION section of the isolation permit hands

PERMIT CANCELED, EQUIPMENT IN SERVICE
# HSEC Document Control Form

## Section A – To be completed by Author/Document Owner

| Name of Document: Hazardous Energy |
| New Document: | Revision X |
| Document Type: Procedure |
| Document Purpose/ Purpose of change: Review of fixed plant isolation, definition of isolation, persons authorised to conduct isolations and lock colours, review of Permit |
| Date of Next Review: 25/10/2015 |
| Author: Nicky Thomas |
| Position: Snr OHS Co-ordinator |
| Document Owner: Brian Soward |
| Position: HR/HSE Manager |

### Safety Management System
- Leadership, Accountability & Ethics
- Planning, Resources, Objectives etc.
- Competency & Behaviour
- Communication & Consultation
- Risk and Change Management
- Emergency Management
- Legal compliance Document Control
- Operations & Maintenance
- Health and Occupational Hygiene
- Biodiversity & Land Management
- Contractors, Suppliers & Partners
- Community
- Project Management
- Product Stewardship
- Incident Management
- Assessment & Reporting

## Section B - Review (HSE Manager to nominate reviewers if required)

Reviewers have made comments to the document author/Owner

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reviewer 1</td>
<td>Brett Gatherecole</td>
<td>25/10/13</td>
</tr>
<tr>
<td>Reviewer 2</td>
<td>Leon Sammut</td>
<td>28/10/13</td>
</tr>
<tr>
<td>Reviewer 3</td>
<td>Chris O'Feran</td>
<td>28/10/13</td>
</tr>
</tbody>
</table>

## Section C – Authorisation

Standards and System Documents require authorisation by the HSE Manager and the General Manager. All other documents will be authorised by the HSE Manager only.

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Position</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>29/10/13</td>
<td>Brian Sowden</td>
<td>HR/HSE Manager</td>
<td></td>
</tr>
<tr>
<td>13/10/13</td>
<td>Cummins Wm</td>
<td>GM Operations</td>
<td></td>
</tr>
</tbody>
</table>

Document to remain attached to this form. HSE Manager to file once authorised.

Norton’s Paddington Operation – PGM-SAF-FRM-06-001A
Uncontrolled if printed, retrieve current version from STEMS