Level:	CS ENERGY
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CS ENERGY PROCEDURE

PERMIT TO WORK (PTW)
CS-PTW-01

Responsible Officer: CS Energy PTW Administrator
Responsible Manager: Head of Operations Services
Responsible Executive: Chief Operating Officer (COO)

DOCUMENT HISTORY

Key Changes	Prepared By	Checked By	Approved By	Date
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Rewording of 7.5.2 and 7.10.2 for easier understanding or requirements	PTW Committee	PTW Committee	A Brown	24/05/2018
Multiple updates to reduce the size of the Procedure Refer to B/D/24/941 Log of Changes - PTW Procedure (SAP)	J Newkirk	A Harvison P De Git	P Matha	27/02/2024
Added, Raking pyrites' and 'metal on belt' are considered the operational tasks requiring the above-mentioned process. Updated reference to Restricted Local Permit procedure.	J Newkirk	A Harvison	P Matha	12/06/2024
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Deleted paragraph 3 in section 9.8. Added statements into the new section 3 to take into account the use of pre-issued permit. Other minor changes Section 8.3 Create an Isolation Certificate • Added a note about use of hasp around common Isolation points • Added note about warnings on the restore sheets around multiple isolations on a single point • Added note about the use of one WCD, if possible Section 8.5 Isolating Plant • Added a paragraph for approved locking devices being approved by the PTW Administrator through the PTW Committee. Section 13.3 Governance • Updated Changes to Documents paragraph: to state, Any change or amendment to the PTW Suite of Documents is to be reviewed and approved by the CS Energy PTW Committee Section 21.3 Attachment 2 added Red Isolation Plastic lock Section 21.9 Attachment 8 Typical Examples of Isolation Hardware and their Applications • Added this whole section	D Fairfull J Newkirk	A Harvison P Tansey B Setch G Barnes	P Matha	12/08/2025

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1 INTRODUCTION

1.1 Purpose

The purpose of this Permit to Work Procedure, (the Procedure), is to provide structure and process on the Permit to Work (PTW) System. The objective of the PTW System is to:

- Control the access to plant and equipment
- Minimise the risk of injury to personnel
- Minimise the risk of damage to plant
- Comply with the Work Health & Safety and Electrical Safety Legislation and CSE requirements
- Comply with the Queensland Electricity Generators Permit To Work Code of Practice.
- Ensure to meet the minimum standards of the Queensland Electricity Generators Permit to Work Code of Practice (2009
- Ensure that process safety risks are controlled through safe and effective isolations.

1.2 Authorisations

The PTW Procedure and associated procedures define specific authorisations and responsibilities to establish a standard and consistent process for all PTW activities.

1.3 Scope

The PTW Procedure is applicable to all work being undertaken at CS Energy sites. It describes the provisions of the PTW process, framework of the PTW system and PTW suite of documents that support the system.

The PTW Procedure does not apply to:

- Plant that has been de-commissioned
- Plant that is not yet a CS Energy asset and CS Energy is not the Principal Contractor
- The CS Energy Emergency Response Teams or External Emergency Services during an emergency or crisis.
- Actions undertaken to make plant or personnel safe or as an immediate response to a critical incident.
- Plant or equipment that has been supplied under Contract with or without an Operator (“wet” or “dry” hired) that is not under the control of a CSE designated Principal Contractor and is on a CSE Site during any maintenance activity.

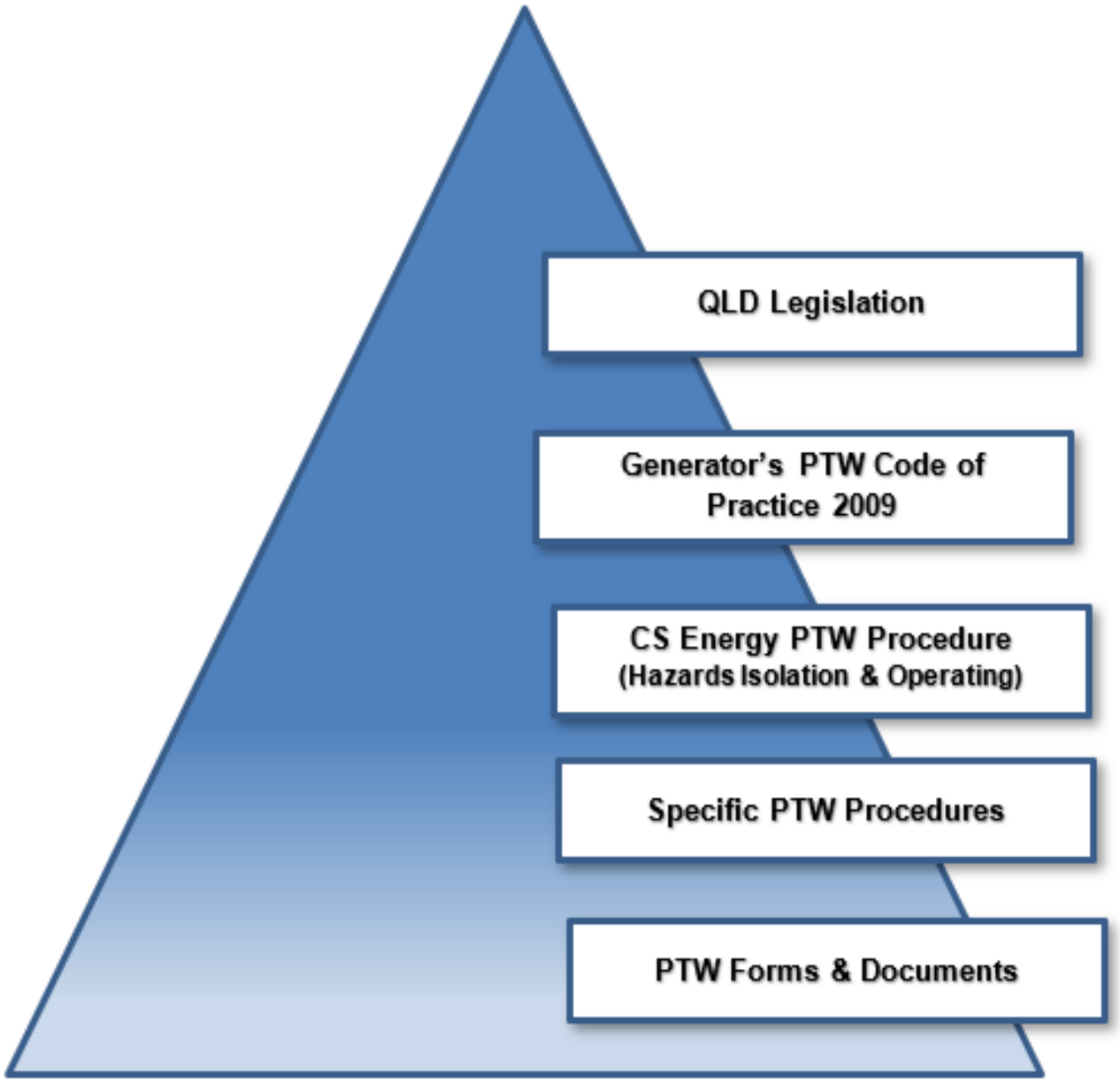


Figure 1 – PTW System Documentation Hierarchy

2 PTW DOCUMENT SUITE

The PTW System uses a number of documents to provide direction and guidance of the process. Figure 2 displays the PTW Document Suite.

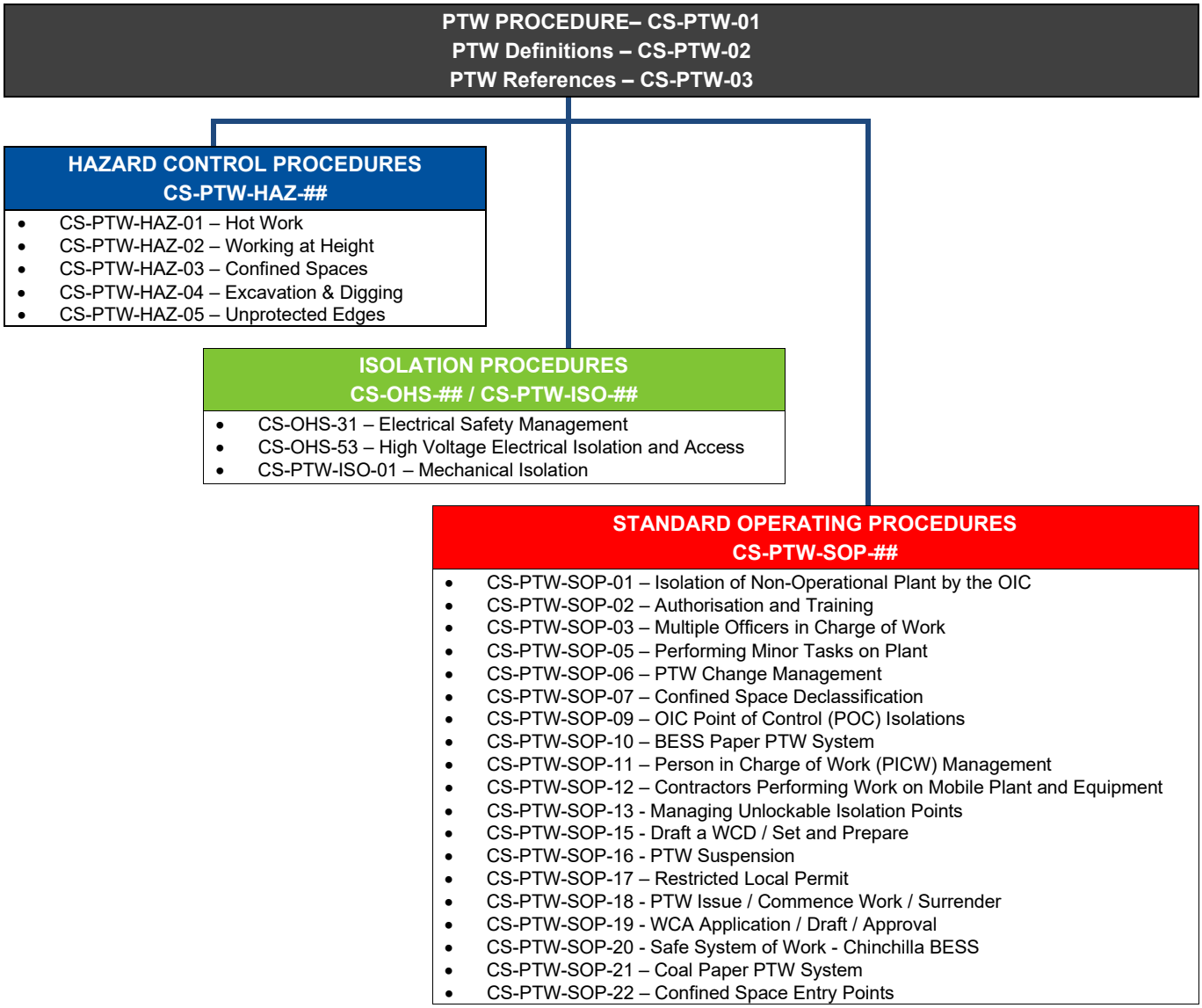


Figure 2 - PTW Document Suite

3 DEFINITIONS

3.1 Overview

The PTW Definitions document provides definitions for the PTW system. It is a stand-alone document referenced in the PTW Procedure and supporting documents in the PTW Document Suite.

Refer to CS-PTW-02 - Permit to Work (PTW) Definitions.

4 REFERENCE DOCUMENTATION

4.1 Overview

The PTW Reference Documentation provides a list of critical documents used to build CS Energy's PTW system. Refer to CS-PTW-03 - Permit to Work (PTW) Reference Documentation.

5 THE PTW SYSTEM DURING A SITE EVACUATION

In the event a site evacuation is initiated, the following will be applied:

1) All work (including work off site) shall cease (there is no requirement to sign off nor lock off the PTW)
   - Work off site shall cease, and the Work Party stand down as the ability to respond to an emergency or incident on or off site is now limited.
   - It shall be the responsibility of the PTWO or the OIC's / PICW's Supervisor to notify the off-site OIC or PICW of such.
2) All confined space work areas shall have the Confined Space Access board turned to face the wall by the OIC, PICW or the Safety Observer prior to leaving the area.
   - All personal access cards shall be removed upon exiting the space
   - There is no requirement to lock off or sign off
   - Unless impractical, the Safety Observer shall remain in place until the last person exits the space. If impractical the OIC or PICW shall ensure a system is activated to manage such.
3) Upon the all clear and return to the work site, the OIC or PICW shall:
   - Manage the sign off and lock off by the entire Work Party to ensure all members are accounted for.
   - Do another air quality test of the confined space.
   - Reassess the area to ensure that there are no changes to work conditions
   - Manage the sign on and lock on process and explain any possible changes to the task or environment.
   - Reinstate the confined space boards as required.

6 PTW PROCESSES

6.1 External Processes

A number of processes external to the PTW process are to be completed before the application of the PTW can be requested. These processes are included in Figure 3 for reference only.

When ePas goes Live there will be no external processes required. All permit to work processes will be captured within ePas.

6.2 Nine Key Elements

The application of the PTW System incorporates 9 key elements to complete the process. The 9 elements are:

- Application for PTW (APTW)
- Drafting and Second Check/Preparing the Permit to Work Isolation Sheet (WCD)
- Drafting and Second Check /Preparing Work Clearance Application (WCA)
- Plant Isolations as dictated by the Permit To Work Isolation Sheet (secured with a lock and tag)
- Issue of PTW (WCA)
- Performing Work
- Suspension of PTW when required (i.e. Testing)
- Surrender of the PTW
- Closure of the PTW (WCA) and PTW Isolation Sheet (WCD), Restoration of Plant.

6.3 Key Roles and Responsibilities

Each element of the PTW system requires the key roles and responsibilities detailed in this procedure to be effectively undertaken and applied to the PTW process. Figure 3 details the process flow and actions associated with the life cycle of a basic PTW. All Permits have a lifespan of three months, A review of permit validity is required after 3 months from first issue date. This also includes validation of long-term isolations at three monthly intervals as well.

Competency Requirement – OIC and PICW to be qualified in a relevant trade to be able to hold a Permit to Work for that craft. For example – Electrical Permits to be held by ElectricalTrades, Mechanical Permits to be held by Competent Mechnical Persons.

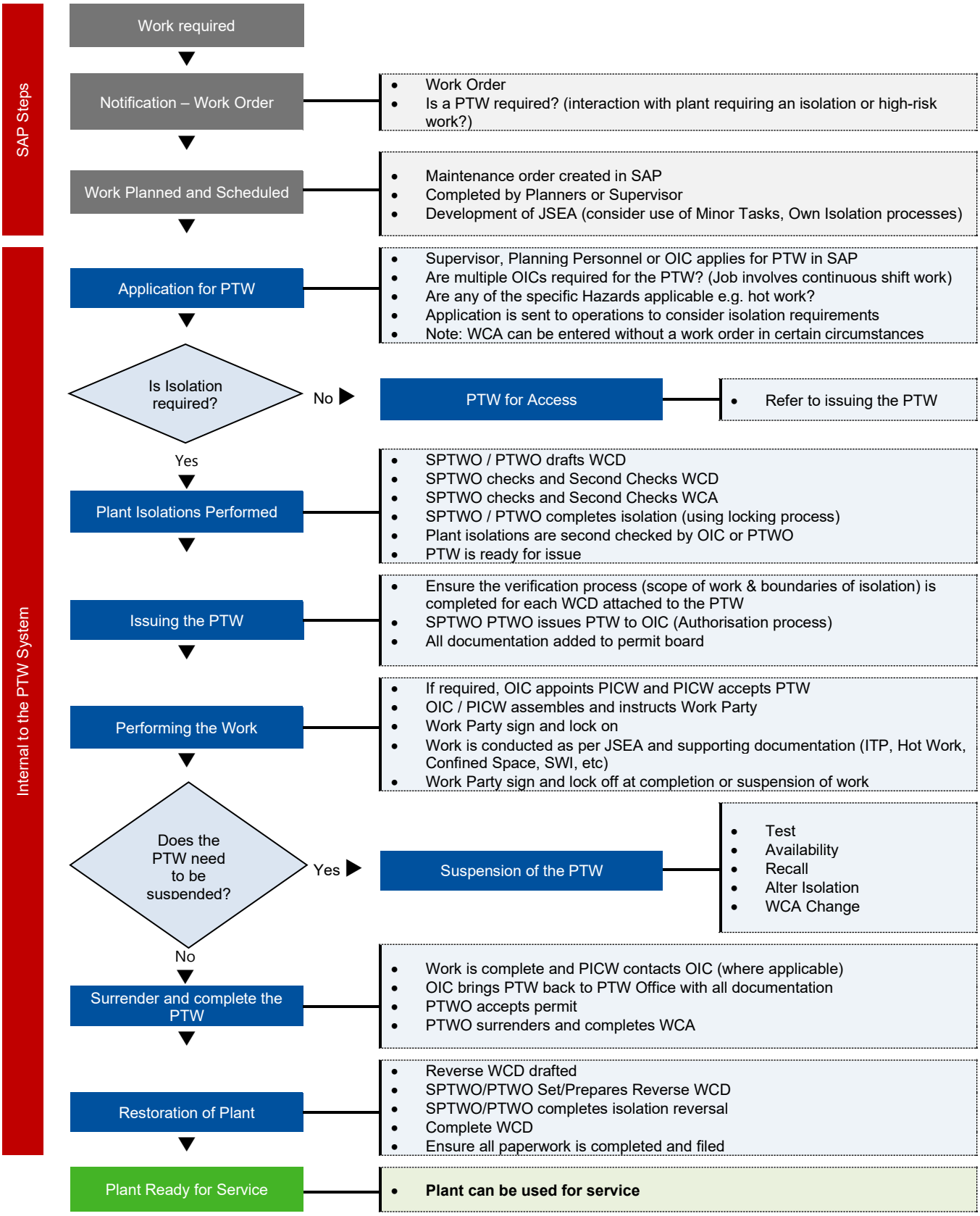


Figure 3 – Basic PTW Life Cycle

7 CORE PTW ROLES AND ROLE PURPOSE

Key Roles and Responsibilities

The responsibilities listed in this section are a high-level overview.

7.1 Executive General Manager (EGM) Operations

The EGM Operations is the owner of the PTW system and is responsible for ensuring a consistent safe system is utilised across all CS Energy sites. The EGM Operations responsibilities are to:

- appoint a CS Energy PTW Administrator
- ensure the adequacy of resources to develop, implement, maintain and improve the PTW system
- represent the PTW system at the Executive level as required

7.2 Head of Operations Services

The Head of Operations Services is authorised by the EGM Operations to provide oversight and governance of PTW system. The CS Energy Head of Operations Services responsibilities are to:

- chair the CS Energy PTW committee
- approve PTW procedures
- approve key changes to the PTW System
- ensure the adequacy of resources to develop, implement, maintain and improve the PTW system

7.3 CS Energy PTW Administrator

The CS Energy PTW Administrator is authorised by the EGM Operations to manage the CS Energy PTW system and to provide feedback on incidents, audits and issues. The CS Energy PTW Administrator's responsibilities are to:

- chair the Site PTW committees
- review and respond to relevant or significant PTW incidents and ensure incidents and investigation outcomes are shared across the business
- review, update and maintain the content of the PTW Procedure
- Provide direction and clarification to the site regarding the application and intent and of the PTW Procedure and associated PTW processes and procedures
- coordinate the site PTW Committee and participate in the CS Energy PTW Committee meetings
- communicate, implement and manage the PTW process
- ensure competency and authorisation of roles for the site PTW system
- Exceptions will no longer be granted to preform authorised roles within PTW unless by exception ie. Long service leave
- ensure all site PTW incidents are investigated and recommendations are provided
- maintain a secure key control process for all locks, spare keys and the master key
- ensure that governance through CCV, internal audits is maintained.
- These responsibilities may be delegated.

7.4 Power Station Manager (General Manager)

The Power Station Manager is responsible to:

- ensure compliance to the PTW System/Procedure
- ensure adequate resources are available to operate and maintain the system at the site

7.5 Shift Supervisor

The Shift Supervisor is responsible to:

- provide direction to the PTWO regarding plant availability to isolate.
- Ensure all ORAs are approved with associated work before commencement.
- request the suspension or surrender of a PTW if plant and / or station contingency management demands such.
- the SS will manage the PTW co-ordination and associated activities as required

7.6 Outage PTW Co-ordinator (Where Required)

To assist the Outage Manager via managing the PTW system associated with the outage.

Such shall include:

- assist with providing direction and interpretation to the site regarding the application and intent of the PTW Procedure and associated PTW processes and procedures
- Outage PTW planning and management of:
  - Permit To Work Applications
  - Permit To Work Isolation Sheets
  - Associated procedures
  - Hardware for locking and tagging
- Scheduling of issuing, suspending and surrendering of outage PTWs
- Scheduling isolations to meet agreed outage schedule
- Scheduling of the site Outage PTW Team to provide PTWO coverage as required.
- Active participation in meeting, workshops and forums that will or may impact on some element of managing the Outage PTW system.
- May communicate and co-ordinate outage and return to service activities with Energy Markets
- Reporting of activities and progress as agreed with the Outage Manager.
- Ensuring consistent standard of adherence to the CSE PTW system by the Outage PTW Team
- Providing expert opinion and advice to the site.
- Actively participate in associated investigation as requested
- Actively participate in the Site's PTW and Safety Committees as requested
- Ensure all Permit To Work Applications issued for the outage are suitable for the work scope documented in the Permit To Work Applications

7.7 Template Officer

The Template Officer is responsible to:

- perform all roles of the SPTWO
- assist the PTW Administrator to maintain a library of Isolation templates
- draft and approve Isolation Templates
- participate in the processes of managing lost keys and locks
- maintain the SAP lock registers and isolation grid panel allocations

7.8 Senior Permit to Work Officer (SPTWO)

The SPTWO is responsible to:

- perform all roles of the PTWO
- provide high level direction and assistance for non-routine and/or routine isolation planning and perform plant isolations
- provide PTWOs with specialist advice in relation to isolations required, plant operations and other operational requirements
- Ensure all ORAs accompanying permit work scope are approved before issue of permit.
- undertake primary planning, coordination and isolation roles during plant outages and overhauls
- check and Set/Prepare Permit To Work Isolation Sheets & Permit To Work Applications
- participate in site PTW audits
- Manage the life cycle of a PTW

7.9 Permit to Work Officer (PTWO)

The PTWO is responsible to:

- draft WCD's and WCA's
- perform plant isolations
- when required, second check the isolation has been applied as detailed on the WCD
- report inconsistencies with plant identification
- ensure isolations are effective for the scope of the PTW
- process and issue the PTW
- consult with SPTWO and Officer in Charge as required
- set prepare WCD for restoration only
- restore the isolation to operational state or if not required, to a safe state.

7.10 Officer in Charge (OIC)

- In instances, it may be more appropriate to separate the OIC duties associated with the managing the PTW from those associated with performing the work and managing the direct safety and progress of the Work Party (including the management of the JSEA).
- In these circumstances the Person in Charge of Work (PICW) process outlined below can be adopted and the OIC responsibilities highlighted in yellow are transferred to the PICW.
- The PICW may be either a Contractor or CSE Employee.

The OIC is responsible to:

- Ensure all hazard management check sheets and documents required to release the PTW for Issue are attached to the application prior to the nominated PTW issue time and date.
- develop and/or review the Job Safety Environment Analysis (JSEA) – this includes not only the work scope hazards but the risk to plant. Process safety risks are escalated to an ORA (Organisational Risk Assessment) in consultation with Operations.
- verify the Permit To Work Applications matches the intended work scope
- verify Permit To Work Isolation Sheet/s covers the items of plant and the intended scope of work
- second check the isolation has been applied as detailed on the WCD
- accept the issue of a PTW and manage both the PTW process and associated documentation
- Prior to commencing work, discuss with each work party member and PICW (*may be done as a group exercise*):
  - The PTW
  - The scope of work and the work area
  - The isolation and limits of the isolation
  - The JSEA (or equivalent) including hazards and controls
- If utilising a PICW, Issue the PICW Work Authorisation Form
  - implement all controls as per the JSEA prior to work commencing
  - coordinate the work activity as per the JSEA and specific job procedures
- apply and manage Point of Control (POC) locks when required
- return PTW for alteration if the scope of work changes

For PTWs where a PICW is nominated, the intent is the OIC shall remain as the PICW's contact point for the duration of the PTW. The OIC shall manage the permit and the relevant isolations while the PICW will manage the Work Party regarding their adherence to the permit, the JSEA and the work performed. **There is an obligation for the OIC to maintain a presence on site while in charge of a permit that has work currently being conducted** (This does not apply when a PICW has been delegated the role for a permit. Any changes to permits/isolations do require the OIC to be present on site), the OIC must:

- as a minimum and with the PICW, discuss the "work" at the commencement and completion of each shift of work.
- monitor the PICW's and Work Party's adherence to the PTW process and address any issues that may arise
- be contactable during periods of work
- The number of permits held by an OIC/PICW is determined by the complexity and risk level associated with the permits involved and, also the willingness of the OIC/PICW to be across the scope of multiple permits up to a maximum of 10.
- In instances where the PICW role will be continually covered over both a day and night shift with two PICWs, OIC coverage may be provided by the procedure CS-PTW-SOP-03 - Multiple OICs of Work, which allows for multiple OIC to manage the PTW.

7.11 Person in Charge of Work (PICW)

The PICW is responsible to:

- prepare the JSEA and implement all controls prior to work commencing
- accept the PICW Authorisation to Work form from OIC and manage the PTW board and documentation
- confirm Work Party is competent and authorised to perform the work activity
- Prior to commencing work, discuss with each work party member and PICW (*may be done as a group exercise*):
  - The PTW
  - The scope of work and the work area
  - The isolation and limits of the isolation
  - The JSEA (or equivalent) including hazards and controls
- coordinate the work activity as per the JSEA and specific job procedures
- maintain communication with the OIC during work activities
- contact the OIC if the scope of work changes.

7.12 Apprentice Roles

Apprentice

- Apprentices, under a registered training contract, are only permitted to apply or hold a PTW nominated role within 12 months of their formal training contract expiration, regardless of their age.
- Those individuals who are single trade qualified and completing a second trade (ie. instrument technician -12 months only) for development are exempt from the above direction and can nominate for a PTW role at any point with the support of their Supervisor and in line with their existing trade qualifications.

7.13 Trainee Permit to Work Officer

- Those as detailed for a PTWO however all their activities, including the drafting of PTWs and isolation sheets shall be actively coached by a Coach PTWO.
- Completion of the tasks detailed in the "PTWO Practical Component Form S1905"
- A Trainee PTWO shall normally be given the authority of a Trainee PTWO by the relevant PTW Administrator upon successful completion of the formal PTWO theory course and assessment. This authorisation will have an expiry period of three months post their commencement date of their Trainee PTWO authorisation.

7.14 Work Party

The Work Party members are responsible to:

- Prior to commencing work, discuss with the OIC (*may be done as a group exercise):*
  - The PTW
  - The scope of work and the work area
  - The isolation and limits of the isolation
  - The JSEA (or equivalent) including hazards and controls
- Each work party member must ensure they possess a clear understanding of:
  - The obligations of a Work Party member working under the PTW
  - The limits of both the work area and the isolation.
  - The JSEA and scope of work,
- complete work in accordance with the JSEA, specific job procedures and instruction
- maintain communication with Work Party members and OIC/PICW throughout the work
- during the work activity, maintain:
  - sign on/off requirements and
  - lock on/off requirements.
- inform the OIC or PICW if they are not trained and competent to complete the work activity e.g confined space entry must have completed the relevant nationally accredited course, working at heights etc.

7.15 All Personnel

All personnel are responsible to:

- report any incident, hazard or near miss to their Supervisor.
- not interfere with any locks, tags, signage or barricade tape.
- adhere to the CS Energy Lifesavers (refer to CS-OHS-49 – Health and Safety Life Savers).
- OIC/ PICW shall be made aware of all people/activities interacting with their permit's work group. Including inspection activities that require other work parties to sign on to their permit to complete a scope of work. All persons will let the OIC/PICW know of such activities before commencing work.
- raise concerns or issues about the work with the OIC/PICW and be prepared to stop the work (challenge) if not resolved.

8 TASK WITHIN THE PTW PROCESS

8.1 Task Preceding the PTW Process

8.1.1 The Work Order

SAP System Work Order

The typical process of generating an application for a PTW is:

- A notification is raised detailing a task be performed or a fault that has been identified (i.e. a valve stem that has a steam leak).
- This notification is processed, work identified, and a work order is generated.
- If a PTW is required to perform the work as detailed on the work order, an application for a PTW is submitted.
- This application shall contain all the relevant information required by the PTWO to generate a PTW and associated isolation (if required).

8.2 Tasks Within the PTW Process

8.2.1 Application for PTW

Requirements

An application for a PTW is the notification to the PTWO that a permit is required to perform work on plant or to manage a designated hazard.

There is a requirement for the scope of work to be clear with required information to highlight particular actions for PTWOs (MODs requiring special actions to return to service) etc.

Under normal work process flows, the application is created from a work order in SAP and submitted by the Planning Personnel, a Supervisor or the OIC nominated for the work; however, any SAP user with the appropriate authority to do so may submit the application. (i.e. Applications do not need to be submitted by the nominated OIC of the work.)

Where electrical work is involved then the OIC must be an OIC with an electrical license (Electrical OIC). If there is combination of mech and elect work then there should be two permits issued – one for mech work (OIC Mech) and the other for elect work (OIC Elect) (Refer to Section 5.3.15 Electrical work performed on a mechanical in B/D/11/30957 - CS-OHS-31 - Electrical Safety Management.

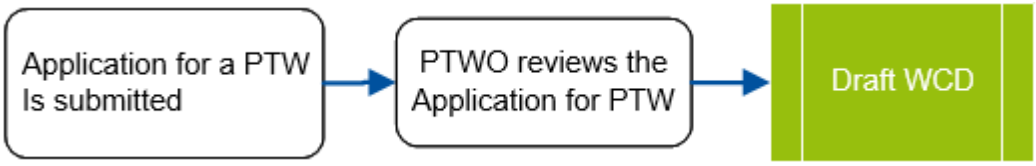


Figure 1 - Application for PTW

8.2.2 Submitting the Application for PTW

Responsibilities

The Planning Personnel / WCA Applicant / OIC are responsible to:

- ensure the work scope and plant to be worked on is clearly defined in the WCA
- add work order requirements to the WCA, including hazards and other relevant authorisations
- liaise with the OIC or OIC's Supervisor to confirm the issue time/return time and tasks prior to submitting the Application for PTW
- liaise with the PTWO to confirm any operational requirements (e.g. plant availability)

- submitting the Application for a PTW

- Typically, the Applicant shall endeavour to provide a scope of work on the WCA that provides a general overview of such work.
- While there is no requirement to detail “each and every” individual task, the information provided must allow the PTWO to undertake the drafting of the WCD with the certainty of ensuring all relevant isolations and actions are considered.
- The PTWO may seek additional information from the Applicant if such is required. If such information is deemed as critical by the PTWO, the PTWO may request the Applicant amend the application.

PTWO Responsibilities

The PTWO is authorised to generate an Application for a PTW in an emergency, unusual situations or to assist with progressing the process after hours.

8.2.3 Review the Application for a PTW

PTWO Responsibilities

The PTWO is responsible to:

- review the Application for PTW details
- seek clarification from the applicant if there is any uncertainty associated with the work or the isolation required.
- consider the impacts of any operational requirements or ramification (consult with the Shift Supervisor in required)
- consult with the SPTWO or other personnel depending on the complexity of the isolations required or the processing of the PTW.

8.3 Draft WCD

Responsibilities

Drafting the WCD for the purposes of isolation requires a PTWO to draft and a SPTWO to Set/Second Check the WCD.

The WCD shall incorporate an isolation or set of isolations that suitably eliminates all energy sources and identified hazards allowing the work to progress. The PTWO shall also consider the restoration of the plant safely when work is complete.

- In some instances, one piece of equipment will end up with an isolation point from multiple WCD’s installed on it, for example one WCD for Electrical Works, and a separate WCD for Mechanical Works.
- In this case care should be taken during restoration that common isolation points are left in the correct state.
- During planning of the WCD’s that have common isolation points, it is good practice to use a hasp so a lock from each WCD can be installed for two reasons firstly to prevent restoration of the initial isolation and second to help raise awareness that another parallel isolation exists on that particular piece of equipment.
- If practical, consideration should be given to the use of one WCD to include all work on a piece of equipment but it is acknowledged that in some cases this is not possible.

- Isolation of plant that contains **multiple electrical supplies** requires the use of switching sheets. The switching process has specific business and legislative requirements that shall be adopted (e.g. authorised electrical personnel, mandatory checks, etc.). Refer to CS-PTW-SOP-02 - Training and Authorisation in the PTW System and CS-OHS-53 - High Voltage Electrical Isolation and Access
- Refer to CS-PTW-ISO-01 for Safe Mechanical Isolation.

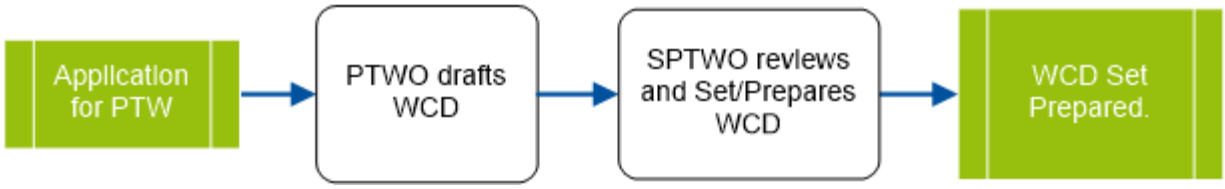


Figure 2 - Draft WCD

8.3.1 Drafting the WCD

This is covered in Section 4.1 - Draft a WCD in CS-PTW-SOP-15 - Draft / Set Prepare a WCD B/D/20/16008.

8.4 Set / Prepare the WCD

This is covered in Section 4.2 Set / Prepare the WCD in CS-PTW-SOP-15 DRAFT A WCD.

8.5 Isolating the Plant

Isolate the plant in accordance with CS-PTW-ISO-01 Safe Mechanical Isolation, CS-OHS-31 Electrical Safety Management, and CS-OHS-53 High Voltage Electrical Isolation and Access.

For Examples of Isolation Hardware and their applications please refer to Section 21.9 Attachment 8 in this procedure.

Only the endorsed locks and locking devices as per Appendix 21.9 Attachment 8 shall be used as outlined. Any new devices must be assessed for suitability by the PTW Administrator or Proxy (PTW Specialist, PTW Coordinator or Shift Supervisor) for immediate use. Present change to the PTW Committee then update the procedure accordingly with details of new device. Add to Appendix 21.9 Attachment 8

PTWO/SPTWO Responsibilities

The PTWO/SPTWO must isolate the plant as specified in the WCD.

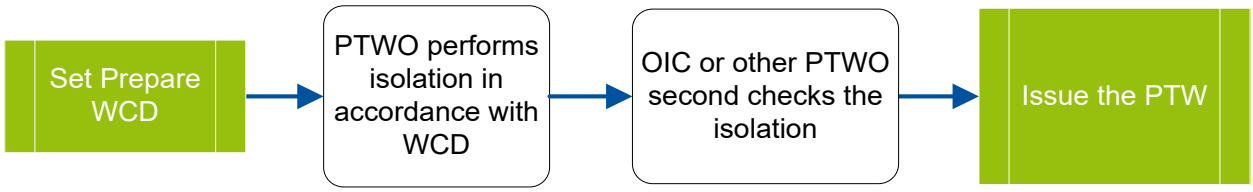


Figure 6 – Isolating the Plant

8.5.1 Plant Isolation

PTWO Responsibilities

The PTWO is responsible to:

- print out the WCD and Tags
- identify the location of the Isolation Storage Rack
- prepare locks and locking devices
- perform plant isolation as detailed on the WCD
- check/ensure the isolation adequacy/effectiveness (e.g. no passing, visual break, isolating device indication or double block and bleed etc)
- stop isolation process when the plant identification does not match the corresponding items in the WCD. When any plant label detail does not match or a label does not exist follow site process to ensure plant description and WCD match
- initial each isolation step on the WCD as it is completed
- electronically record the isolation steps completed in SAP
- place the Isolation Key/s and documentation at the Isolation Storage Rack

8.5.2 Second Check of the Isolations

OIC Responsibilities

The OIC is responsible to:

- If required, seek PTWO assistance to locate the isolation points.
- Inspect each item of the WCD and visually verify that each isolation step has been performed as detailed on the isolation sheet.
  - The correct item of plant has been isolated
  - The correct tag and lock have been used as per the isolation sheet
  - The item of plant is in the correct isolated position
  - Sign the isolation sheet as Second Check by yourself
- check/ensure the isolation adequacy/effectiveness (e.g. no passing, visual break, isolating device indication or double block and bleed etc)
- If a visual verification of an isolation is insufficient, seek PTWO assistance
- where it is not possible to view the isolation point (e.g. HV switchgear in switch room), a suitably competent person is to verify the isolation on behalf of the OIC. *(If possible, this person shall electronically record the completion of the second check. If not possible, then they shall sign the paper copy of the WCD and the OIC shall electronically record the completion of the second check.)*
- electronically record the completion of the second check

- Stop the process and return to PTWO if any discrepancies or errors are found (i.e. the plant identification label does not match the wording in the WCD, the status of the item is not as detailed in the WCD)
- A PTWO may perform this role.
- Protocols for performing switching programs require both Switching Officers (or a Switching Officer and the Switching Officers assistant) to complete this activity concurrently, as per CS-OHS-53 - Multiple Supply Electrical Equipment Isolation and Access.
- This activity shall be a distinct phase and "separated by time and space" from the preceding phase of performing the isolation.

8.5.3 Already 'Second Checked by' another OIC/PTWO

OIC Responsibilities

The OIC receiving the permit is responsible to:

- verify the isolation boundaries are sufficient to allow the scope of work to be undertaken
- verify that all isolations have been "Second Checked" and recorded on the WCD

8.6 Issuing the PTW

This is covered in Section 4.1 - Issue the PTW in PTW Issue / Commence Work / Surrender CS-PTW-SOP-18.

8.7 Performing the Work

This is Covered in Section 4.2 Commence the work - PTW Issue / Commence Work / Surrender CS-PTW-SOP-18.

8.7.1 During Work Activities

This is covered in Section 4.3 During Work Activities in CS-PTW-SOP-18 PTW Issue/Commence Work/Surrender.

8.7.2 Work Not Completed at the End of the Maintenance Shift

This is covered in Section 4.4 Work not Completed at the End of the Maintenance Shift in CS-PTW-SOP-18 PTW Issue/Commence Work/Surrender.

8.7.3 Transfer of a PTW to another OIC

This is covered in Section 4.5 Transfer of a PTW to another OIC in CS-PTW-SOP-18 PTW Issue/Commence Work/Surrender.

8.8 The Suspension of a PTW

This is covered in Section 3.1 Suspend a PTW in CS-PTW-SOP-16 PTW Suspension.

8.8.1 Suspend to Test

This is covered in Section 3.2 Suspend to Test in CS-PTW-SOP-16 PTW Suspension.

8.8.2 Suspend to Availability

This is covered in Section 3.3 Suspend to Availability in CS-PTW-SOP-16 PTW Suspension.

8.8.3 Suspend to Recall

This is covered in Section 3.4 Suspend to Recall in CS-PTW-SOP-16 PTW Suspension.

8.8.4 Suspend to Alter Isolation

This is covered in Section 3.5 Suspend to Alter Isolation in CS-PTW-SOP-16 PTW Suspension.

8.8.5 Suspend to Change

This is covered in Section 4.5 in CS-PTW-SOP-16 PTW Suspension.

A Permit can be Suspended to Change to enable the date and OIC name (for transfer purposes) to be altered to suit work requirements. This change does not require a Set/Prepare step by a SPTWO.

If a hazard is added/Removed under WCA Change, the PTWO/SPTWO who puts the WCA back to change can also set prepare the document.

8.9 Surrender of the PTW

This is covered in Section 4.6 Surrender of the PTW in CS-PTW-SOP-18 PTW Issue/Commence Work/Surrender.

8.9.1 Managed Confined Spaces

This is covered in Section 4.7 Manage Confined Spaces in CS-PTW-SOP-18 PTW Issue/Commence Work/Surrender.

8.9.2 Work Activities Complete

This is covered in Section 4.8 Work Activities Complete in CS-PTW-SOP-18 PTW Issue/Commence Work/Surrender.

8.9.3 Surrendering the PTW

This is covered in Section 4.9 Surrendering the PTW in CS-PTW-SOP-18 PTW Issue/Commence Work/Surrender

8.10 Restoration of the Plant

This is covered in Section 4.10 Restoration of the Plant in CS-PTW-SOP-18 PTW Issue/Commence Work/Surrender.

Linked PTWs

Check that the WCD from the surrendered PTW is not linked to another PTW. If not, the isolation can be reversed, and the plant restored to service.

8.10.1 Restoration Sheet

PTWO Responsibilities

The PTWO is responsible to:

- check for linking between another PTW and the WCD
- Set prepare the WCD for restoration
- print out the Restoration Sheet

The prime functions of the restoration sheet are:

- Provides the electronic approval to restore the plant (i.e. no PTW are linked to the Permit To Work Isolation Sheet)
- Shows a sequenced process of the restoration to be performed
    - there may be instances that will necessitate the restoration sheet be part "restoration" and part "operational procedure"
    - may include the reference to an Operational procedure or check sheets
- If it is a PTW related to new plant/restoration or modification (MOD), then it should include a reference to relevant commissioning documents/checks etc.
    - where it is a MOD then the restoration of plant should include any key documents regarding checks etc as restoring and commissioning documents.

8.10.2 Complete PTW

This is covered in Section 4.11 Complete PTW in CS-PTW-SOP-18 PTW Issue/Commence Work/Surrender.

9 SPECIAL PURPOSE ISOLATIONS AND PROCESSES

9.1 Equipment identification while applying lock and tags

The following will occur to Sootblowers and Kogan ACC Fans to make sure that the OIC and work party are working on the right equipment:

1. Identification tags will be included into the isolation standards and templates.
2. The PTWO will use a cable tie (not a lock) to attach a identification tag to the equipment that needs to be worked on.
3. While doing the second check the OIC will confirm that the tag has been attached and acknowledged this with a signature.

9.2 Isolation of non-Operational Plant by the OIC

Own Isolation is the process of allowing an OIC authorised by the PTW Administrator, to conduct their own isolation. Own isolations shall be limited to non-operational plant, requiring single point isolations applied by the OIC.

Refer to – Procedure - **CS-PTW-SOP-01 -** Isolation of non-Operational Plant by the OIC for further direction.

9.3 Multiple OIC PTW

Where a PTW requires continuation of work across day and night shifts, the PTW will need multiple OICs to complete the PTW activities. An appropriate handover is to take place during the transfer of OIC responsibilities at the change of shift.

Refer to – Procedure - CS-PTW-SOP-03 - Multiple Officers in Charge (OIC) of Work

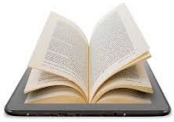
9.4 Performing Minor Tasks on Plant

Defines the actions and responsibilities in relation to performing minor tasks that have a **low** controlled risk rating as assessed using a 2x2 Task Risk Analysis or a JSEA. A restriction on using this procedure is that any identified controls:

- Do not require a formal isolation (PTW)
- Are managed by the person undertaking the work.

Such tasks include:

- Fault finding;
- Control circuit testing;
- General greasing;
- Condition monitoring; and
- General cleaning (including coal spills, minor lagging work and work on operational plant).
- Minor maintenance of non-operational items of plant (i.e. replace a general purpose water hose nozzle)



Refer to – Procedure - CS-PTW-SOP-05 – Performing Minor Tasks on Plant for further Direction.

- **This process only applies to mechanical and extra low voltage electrical work where voltage levels are below 50V AC or 120V DC.**
- **This process is not to be used for any work that involves High Risk Hazards (see Section 10) as defined in the PTW suite e.g. hot work, confined spaces, live electrical work.**
- **Work must be completed in the current maintenance shift**
- Not to be used for work involving simulations within the control system

9.5 Point of Control (POC)

The Point of Control (POC) process allows an Officer in Charge of Work (OIC) to control a nominated isolation point or points of a WCD.

The POC locking process utilises White Locks and is used for two purposes within the PTW system:

- The first is associated with securing confined space access and ventilation points (refer to CS-PTW-HAZ-03 – Working in Confined Spaces).
- The second purpose is to control isolation points when undertaking work.

Refer to – Procedure - CS-PTW-SOP- 09 - OIC Point Of Control (POC) Isolations for further direction

9.6 Person in Charge of Work (PICW) Management

Documents the additional responsibilities and of all persons involved in the management of a permit utilising a Person In Charge Of Work (PICW).

Work performed by the PICW under this procedure may be:

The work stipulated on the PTW during normal block of work utilising one PICW or

The work stipulated on the PTW during a normal block of work utilising many PICWs or

One of many work tasks stipulated on a PTW by multiple PICWs (as required to allow an extended and continuous period of work).

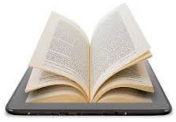
Typically, this is to allow a continuation of work over 24 hours.

Refer to – Procedure - CS-PTW-SOP- 11 Person In Charge Of Work (PICW) Management for further direction

9.7 Contractors Performing Work on Mobile Plant and Equipment

Provides the process associated with performing “Low controlled risk” maintenance work (as agreed by the site contact) on mobile plant and equipment that is located on a CS Energy Site and utilises a Contractor’s or external entity’s Safe Work Method Statement (SWMS) or Work Safe System (WSS). This procedure is applicable to both CS Energy or a Contractor’s plant and equipment where the work will occur on CS Energy property or under CS Energy control.

Note that any work deemed at a higher controlled risk than “Medium” will require a full PTW)



Refer to – Procedure - CS-PTW-SOP- 12 - Contractors Performing Work on Mobile Plant and Equipment for further direction.

9.8 Operational Task

An operational task is a task undertaken by a competent member of the Operations Team that meets each of the following requirements:

1. Resides within the Operations Team
2. Performs the activities under a system supporting this work:
    a. High level of plant and process system knowledge,
    b. Approved task procedure or equivalent (i.e. Standard Work Instruction (SWI)) NB: Depending on the risk, in order to reduce the risk, some SWI’s may include the use of locks and tags as part of the SWI to reduce the risk after application of the SWI to low risk (see point #3 below for details)
    c. PTWO or OIC qualifications
    d. Secure communications with PCR,
    e. Task closely monitored by the Unit Controller

f. Performed to minimise the number and length of production related interruptions

3. Operational tasks that are carried out under an approved task procedure that includes the use of locks and tags are to be carried out in conjunction with a Restricted Local Permit as follows as follows:
   - PCO will identify that the task needs to be done.
   - Use a pre-issued permit located in the Permit Office. With copies of the SWIs located in the field.
     - The document pack in the field will contain:
       - The approved SWI for the task
       - Locks and Tags directly associated with the task (Tags will have the correct KKS for isolation Points)
       - Sign on/off sheet
   - The PTWO will Sign On to the SWI sign on sheet.
   - The PTWO will apply Locks and Tags (located in the Procedures container at the job site) as steps in the approved Procedure/SWI.
   - PTWO maintains control of the Key while performing the Task.
   - When the task is complete, Locks will be removed as steps in the approved Procedure/SWI.
   - The PTWO will Sign Off the sheet
4. Supervisors will be responsible for auditing the task through regular safety interactions and the sign on/off sheets will be collected and archived on a routine basis.

- **PTWO's act as OIC's – as the training material and competencies are the same – therefore, any PTWO can be an OIC to conduct their operational tasks.**

5. Once commenced, make sure that the task is completed as soon as practical and without leaving the immediate area until the task is completed.
6. Make sure that both the plant design and operating philosophy support the undertaking of the operational task.
7. Make sure that the potential for confusion in identifying the plant and task are extremely low.

9.9 Access PTW

An Access PTW allows work on operational or non-operational plant that does not require an isolation to secure the energies. The Access PTW provides a structured process and controls to complete the work. The Access PTW has the same status as a normal PTW.

- If the 2x2 TRA identifies the inherent risk of the task as being Low, Section 8.1 - Performing Minor Tasks on Plant can be considered in lieu of an Access permit.
- Access permits are valid for one month. An extension of this period shall require the PTW Administrator's approval.

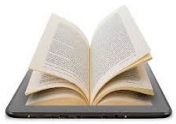
9.10 Electrical Isolation with Multiple Supplies

Approved Switching Sheet

Where the isolation process for a PTW involves multiple sources of supply HV and/or LV), Refer to CS-OHS-53 - High Voltage Electrical Isolation and Access and procedures for further direction an approved switching sheet shall be utilised to manage the electrical isolations. The switching sheet shall be written by an authorised and competent Switching Sheet Writer and Switching Sheet Approver, and the switching performed by an authorised and competent Switching Officer and Switching Officer Assistant.

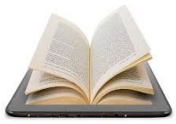
Refer to – Procedure - CS-OHS-53 – High Voltage Electrical Isolation and Access High Voltage Electrical Isolation and Access procedures for further direction.

9.11 Restricted Local Permit



Refer to – Procedure CS-PTW-SOP-17 Restricted Local Permit.

9.12 High Voltage Isolation (Single Feed) for Electrical Work



All High Voltage Electrical Isolations shall comply with – Procedure - CS-OHS-31 – Electrical Safety Management.

10 CS ENERGY / TRANSMISSION ENTITY INTERFACE

QLD Electricity Entity

This section has the same intent as Section 12, Generation/ Transmission/ Distribution Customer Interface of the Queensland Electricity Entity Procedures for Safe Access to HV Electrical Apparatus (SAHVEA), May 2012, written by PowerLink Qld.

10.1 General Requirements

Requirements

- Only CS Energy's PTW system and the High Voltage Isolation and Access Procedures (SAHVEA) may be used to isolate plant at a CS Energy / Transmission Entity interface
- All personnel involved in isolating plant at a CS Energy / Transmission Entity interface are to be trained and authorised in both CS Energy's PTW system and the SAHVEA system
- Power station sites may develop specific procedures to address interface requirements with other stakeholders such as distribution entities and organisations involved in construction works

10.2 Initiator of Isolation

Responsibilities

The Initiator of Isolation is responsible to:

- determine which isolation system to use:

- if the Transmission Entity requires work to be performed, the SAHVEA system is to be used or
- if CS Energy requires work to be performed, the PTW system is to be used

- prepare or coordinate the preparation of Switching Sheets:
  - Switching Sheets involving the operation of Transmission Entity plant require State Control Approval (SCA) numbers and shall be prepared and/or checked by Transmission Entity personnel prior to implementation
  - Switching Sheets involving the operation of CS Energy plant shall be prepared and/or checked by CS Energy personnel prior to implementation
- coordinate CS Energy and/or Transmission Entity personnel as required to perform the switching

10.3 CS Energy Responsibilities

Responsibilities

CS Energy is responsible for:

- the writing and/or checking of Switching Sheets required for CS Energy plant
- switching CS Energy plant as directed by the Initiator of Isolation
- nominating a contact person for the coordination of the Switching Sheets between CS Energy and the Transmission Entity
- establishing a system to inform the Transmission Entity and/or Network Operations Contingency Assessment contact person of any changes.

10.4 Transmission Entity

Responsibilities

Transmission entity is responsible for:

- the writing and/or checking Switching Sheets required for Transmission Entity plant
- nominating a contact person for the coordination of the Switching Sheets between CS Energy and the Transmission Entity
- establishing a system to inform the CS Energy contact person of any changes

10.5 Network Operations Contingency Assessment

Responsibilities

The Network Operations Contingency Assessment is responsible for:

- providing State Control (SCA) numbers for Switching Sheets involving Transmission Entity Plant
- switching Transmission Entity plant as directed by the Initiator of the Isolation
- nominating a contact person for the coordination of the Switching Sheets between CS Energy and the Transmission Entity and
- establishing a system to inform the CS Energy contact person of any changes

Interface with entities (other than transmission) will be managed through procedures.

11 HAZARD CONTROL PROCEDURES

High Risk Activities

There are a number of high-risk activities identified by CS Energy that require specific controls to manage the work. The provisions below identify the mandatory requirements of each Hazard Control Procedures located in the PTW Document Suite:

Procedure No	Hazard Control Procedure	Procedure Requirements
CS-PTW-HAZ-01 B/D/11/19573	Hot Work	S0010 Hot Work Control Checklist
CS-PTW-HAZ-02 B/D/11/19581	Working at Heights	S1972 Working at Heights Control Checklist
CS-PTW-HAZ-03 B/D/11/39828	Confined Spaces	S1891 Part 1: Confined Space Risk Assessment S1889 Part 2: Confined Space Rescue and Retrieval Plan S1890 Part 3: Confined Space Atmospheric Monitoring Sheet S1833: Part 4 Confined Space Entry - Sign On / Sign Off Sheet
CS-PTW-HAZ-04 B/D/11/19576	Digging, Excavation and Building Penetrations	S1877 Digging, Excavation and Building Penetrations Control Checklist
CS-PTW-HAZ-05 B/D/12/1361	Unprotected Edges	S1973 Unprotected Edges Control Checklist
CS-OHS-31 B/D/11/30957	Live Electrical Work Electrical Safety Management	S1885 Live Electrical Work Checklist

12 MANAGEMENT OF PTW INCIDENTS

12.1 Incident Definition

Within the PTW system, an incident is defined as any deviation from the approved process, as defined by the PTW Procedure and associated procedures, which occurs after the Permit or Isolation sheet has been “Set Prepared” issued, lock not placed.

12.2 CS Energy Incident Management Procedure

All incidents are subject to CS Energy Procedure - CS-IM-01 – Incident Management procedure. Following the incident investigation outcomes, the investigation team will make recommendations to the PTW Administrator in relation to root cause, system improvements.

12.3 CS Energy PTW Administrator Responsibilities

The PTW Administrator is responsible for:

- reviewing and responding to relevant or significant PTW incidents.:
- appointing an investigation leader where appropriate

- ensuring all site PTW incidents are investigated and recommendations are provided to the appropriate level of the business

13 GOVERNANCE

13.1 CS Energy PTW Committee Structure

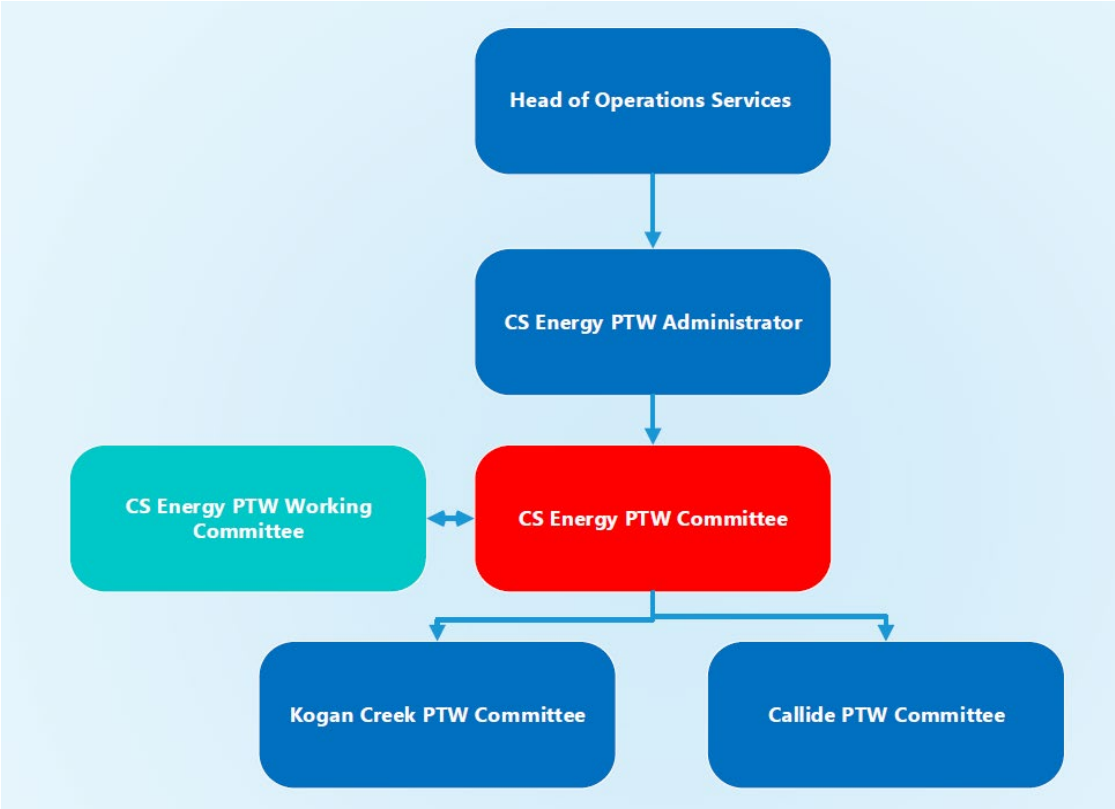


Figure 7 - CS Energy PTW Committee Structures

13.2 Core Committee Responsibilities for the PTW System

13.2.1 CS Energy PTW Committee

CS Energy PTW Committee Members

The CS Energy PTW Committee is made up of the following constituents:

- Head of Operations Services
- CS Energy PTW Administrator
- Health and Safety Representative
- Technical expertise as deemed appropriate
- WCM Committee Representative.

CS Energy PTW Committee Members

The Committee shall:

- form an advisory body to the CS Energy Operation Services Manager on such matters as:
  - process modifications to the PTW System
  - introduction of new processes to the PTW System

- modifications to the Work Clearance Management System.

- review and table all site incidents and actions taken, and make recommendations to the CS Head of Operations Services
- review and table all site incidents and actions taken, and make recommendations to the CS Energy PTW Administrator and for Approval by Head of Operations Services
- Meet monthly and maintain a minuted record of all meetings and decisions.

PTW Working Committee

- The Committee is made up of:
- PTW Working Committee Chairperson
- SAP Technical Support Person
- WCM Committee members (nominated site representatives for each site).

PTW Working Committee Duties

The Committee shall:

- Develop, modify and improve the SAP PTW system under the direction of the CS Energy PTW Administrator
- Work closely with the SAP and IT experts providing input and testing support for all proposed changes
- Meet at least quarterly and maintain a minuted record of all meeting and decisions.

13.2.2 Site PTW Committee

Site PTW Committee

The Site PTW Committee is made up of the following constituents:

- PTW Administrator
- Senior Permit to Work Officer (SPTWO)
- Permit to Work Officer (PTWO)
- Maintenance personnel e.g. Supervisors and Officer in Charge (OICs)
- Site Health and Safety Representative.

Site PTW Committee Duties

The Committee shall:

- Develop PTW procedures using the guidelines of the PTW Procedure as required for approval authorisation of the PTW Administrator
- Monitor weekly PTW reviews and critical control audits
- Review findings of incidents and auditing and make recommendations for improvement to the PTW Administrator
- Meet monthly and maintain a minuted record of all meetings and decisions

13.3 Auditing

The CS Energy PTW System audit process will consist of:

Weekly Review

A weekly CCV Permit to Work review of one active or completed permit conducted by the Shift Supervisor or designated representative of each shift team (one per shift cycle),. . The review findings will be tabled at the Monthly Site PTW Committee Meeting.

Quarterly Review

Quarterly reviews by the PTW Administrator are designed to ensure adherence to the PTW system and procedures. These reviews will consist of three CCVs and a desk top review of six completed PTWs. The quarterly review findings will be tabled at the CS Energy PTW committee meeting in January, April, July and October of each year.

Annual Review

An annual review of the PTW system at each power station will be conducted each April by the Head of Operations Services and the CS Energy PTW Committee. This review is to consist of an appraisal of feedback gained from each power station along with trends derived from the quarterly reviews over the previous 12 months.

Changes to Documents

Any change or amendment to the PTW Suite of Documents is to be reviewed and approved by the CS Energy PTW Committee. Approved changes will be made to the controlled copy of the PTW Suite of Documents with a description and explanation where necessary. Refer to CS-PTW-SOP-06 "B/D/12/10395"– Change Management in PTW System.

13.4 Process Governance

Governance process for Permit to Work Validation:

- Relevant KPI's:
- PTW CCV Compliance in Period (target 100%).
- PTW CCVs Performed
- PTW Incidents
- Template Usage (target > 70%).
- Break-in Permits 0-2 priority (target 0).
- Non-Priority Break-ins 3-5 priority (target 0).
- Permits Overdue (target <5%).
- Number of Permits held by OICs.
- Number of active Isolations.
- Site Maps of Active permits and areas
- Corporate PTW and HV Switching Committee to meet at least quarterly to review all aspects of Permit to Work Management Governance, Auditing and Performance.
- PTW Working Group – Monthly to meet and discuss changes to procedures and processes and their impacts.
- Site PTW Meeting- Monthly- Discuss learnings and issues that specifically impact site and potential improvements.
- Site Leadership team to conduct 1 PTW CCV per month to monitor adherence to the PTW processes.

13.4.1 Executive General Manager (EMG) Operations

1 CCV per quarter

13.4.2 CS Energy PTW Administrator

2 CCVs per month

13.4.3 Power Station Manager (General Manager)

1 CCV per month

13.4.4 Production Manager/ Shift Supervisor

1 CCV per month

13.4.5 SPTWO

1 CCV per shift round

14 TRAINING AND COMPETENCY

14.1 Induction

Compulsory Induction

Every person that enters a CS Energy site shall attend a general site induction. This induction will provide an awareness of the PTW system. Completion of the Site Worker induction will authorise the person as a Work Party member to conduct work under a PTW.

Work interacting with specific hazards may require specialised roles to safely conduct the activities. Further training and assessed competence is required for these circumstances e.g. confined space management.

14.2 Authorised PTW Roles

PTW Administrator

The PTW Administrator is responsible for:

- maintaining a training and competency system as specified in CS-PTW-SOP-02 - Training and Authorisation of Persons in the PTW System.
- authorising personnel in the following PTW roles:
  - OIC
  - PICW
  - PTWIO
  - PTWO
  - Template Officer
  - Switching roles
  - OIC/PTWO Restricted

The training and authorisation procedure documents

  - specific roles, courses and training documentation
  - approved trainers for each package
  - prerequisite requirements for each PTW role.
  - the period of authorisation (maximum 3 years)
  - requirements for document management of training records

15 LOSS OF ELECTRONIC PTW SYSTEM

SAP Versus Paper Based PTW System

CS Energy's PTW System is operated and maintained using SAP software. However, in the event of the loss of SAP or other critical system or service, a contingency plan shall be maintained at each site in line with CS Energy crisis and/or emergency plans. The objective of the contingency plan is to ensure safe operation. The principles of the system shall apply using a manual/paper-based PTW System.

Refer to CS-PTW-SOP-10 – BESS Paper PTW System (BESS) or CS-PTW-SOP-21 – Coal Paper PTW System (other CSE sites).

16 RECORDS

Compliance

Keeping records of the PTW process undertaken for a job demonstrates compliance with the Work Health and Safety Act 2011 in controlling risks in the workplace. It also maximises the effectiveness of the process and assists when undertaking subsequent risk assessments and system reviews.

Keeping records for the PTW System provides CS Energy the ability to:

- demonstrate that the process was conducted properly (e.g. to provide evidence)
- comply with legislative requirements

Records Retention

All PTW records shall be:

- stored and maintained in such a way that they are readily retrievable and protected against damage, deterioration or loss following CS Energy's approved archiving process
- the length of retention and disposal of records shall be defined in the CS Energy Records and Disposal Schedules, refer to Records Management department for more information

17 MANAGEMENT OF KEYS AND LOCKS

17.1 Lock and Key Register

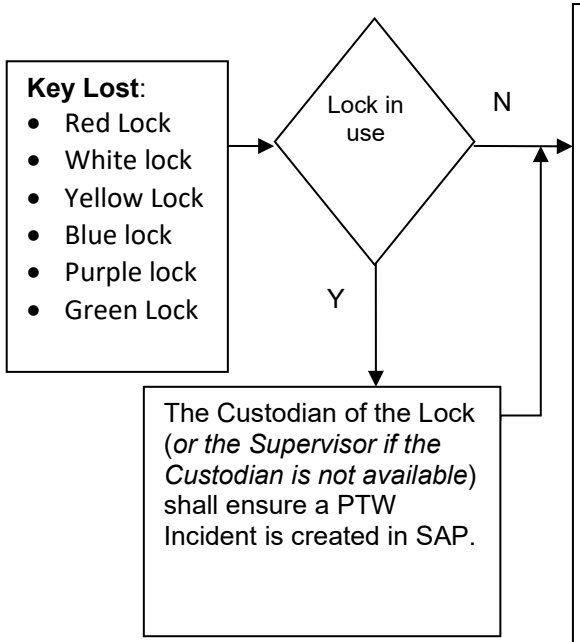
The PTW Administrator is responsible to:

- maintain a lock and key register, containing the following information:
  - lock and key codes for blue/purple Personal Locks, including who they are issued to
- maintain control and security of the master key and spare keys for all lock series on site
- maintain a process where all contractors who complete work on site following an outage period or following specific work activities, hand in their blue Personal Locks
- maintain a process where locks will only be made available to personnel that have had appropriate training

17.2 Key and Lock Control

This section also incorporates the OIC or Work Party Member being unavailability and the failure of locks.

The management and control of locks and keys is a fundamental safeguard within the PTW system. As a result, there are a number of prescriptive processes that shall be followed to ensure the integrity of both the locks and keys and hence the PTW system.



"KEY LOST" OPTIONS TO SELECT

All options shall require the utilisation of the Form S2221 - PTW Administrator Approval for Key and Lock Issues B/D/16/4664

Option 1: Use the second key (regardless of if the lock is in use or not)

PTWO: Request the Site PTW Administrator's approval to utilise the second key, and if approved, supply this key for use.

Note: If the Second Key is utilised, ensure its return to the key box once used.

Template Officer: Consider ordering a new lock
If second key not available, see option 3.

Option 2: Remove the lock from the system (lock not in use)

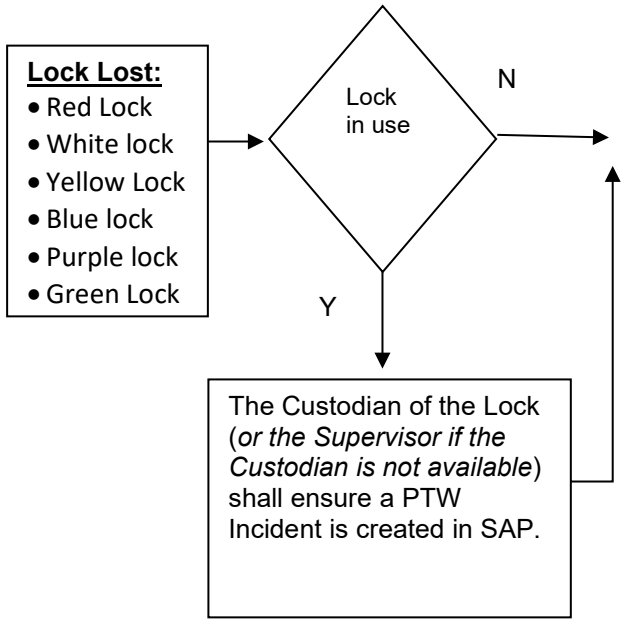
PTWO: Consider destroying the lock or removing the lock from service until a new key is obtained
Template Officer: Remove the lock or series from the relevant lock register. Consider ordering a new lock.

Option 3: Use of the Master key (lock in use)

PTWO: Request the approval from the PTW Administrator to remove the lock or lock series by use of the Master Key. Consider, once the lock is removed, destroying the lock/s or removing the lock from service until a new key is obtained.

Template Officer: Remove the lock or series from the relevant lock register. Consider ordering a new lock.

PTWO: Issue or arrange for issue of a new lock and key if required.



"LOCK LOST" OPTIONS TO SELECT

All options, except Personal Lock replacement, shall require the utilisation of the Form S2221 - PTW Administrator Approval for Key and Lock Issues B/D/16/4664

Option 1: Red or White Lock Allocated to a WCD

PTWO: Consider if there are unused locks in the series, if so utilise an unused lock.
Consider setting the WCD and WCA to draft and altering the lock series.
Template Officer: Remove the lock or series from the relevant lock register. Consider ordering a new lock.

Option 2: Red or White Lock Not Allocated to a WCD

Template Officer: Single locks: Remove the lock from the relevant lock register. Consider ordering a new lock.
Series locks: Remove the series from the relevant lock register. Consider ordering a new lock. Note that it is acceptable to edit the number of locks in a lock series. (i.e. originally series may have had ten locks, could be edited to nine and remain in service as a nine-lock series.)

Option 3: Personal Locks (managed by security)

Lock Custodian: Seek advice from your supervisor on the site process to obtain a replacement lock.

Option 4: Yellow or Green Locks

Lock Custodian: Seek a replacement lock from the PTWO.
PTWO: Consider setting the WCD and WCA to draft and altering the lock number.
Template Officer: Remove the lock from the relevant lock register. Consider ordering a new lock.

The OIC or Work party Member is not available to remove their lock.

- Red Lock
- White lock
- Yellow Lock
- Blue lock
- Purple lock

The Custodian of the Lock (*or the Supervisor if the Custodian is not available*) shall ensure a PTW Incident is created in SAP.

OIC or WORK PARTY MEMBER NOT AVAILABLE OPTION

All options shall require the utilisation of the Form S2221 - PTW Administrator Approval for Key and Lock Issues B/D/16/4664 If the lock key is not available, also follow the options as detailed for the "Key Lost".

*OIC is unavailable (Work in progress and the work party remain **signed on to** the PTW)*

1. The PTW Co-ordinator, Shift Supervisor, PTWO, SPTWO or OIC's Supervisor (i.e. whoever is first made aware of the situation) shall instruct the Work Party to cease work and sign off the PTW.
2. Follow the process below "OIC is unavailable (all work party members have signed off the PTW)".

*OIC is unavailable (all Work has ceased, and the work party have **signed off** the PTW)*

There are four solutions:

1. OIC able to return to Site
   a. OIC's Supervisor or Manager: Recall the OIC to site.
2. OIC contactable but not able to return to site
   a. Over the phone, the OIC gives permission to the PTWO to transfer the PTW. This action shall be repeated to a second PTWO. Both PTWOs sign the transfer section of the PTW noting the time and date of the call and the request from the OIC. The PTW can then be transferred.
3. OIC's Supervisor or Manager available on site
   a. The OIC's Supervisor or Manager accepts the role as the OIC on the paper copies of the PTW Form in Section 4. If this person is not an Authorised OIC, the first and only action is to ensure no work commences until the PTW is transferred to an Authorised OIC. (The OIC's site access will be suspended)
4. Supervisor or Manager available but not on site:
   a. Over the phone, the OIC's Supervisor or Manager gives permission to the PTWO to transfer the PTW. This action shall be repeated to a second PTWO. Both PTWOs sign the transfer section of the PTW noting the time and date of the call and the request from the OIC's Supervisor or Manager. The PTW can then be transferred. (The OIC's site access will be suspended)

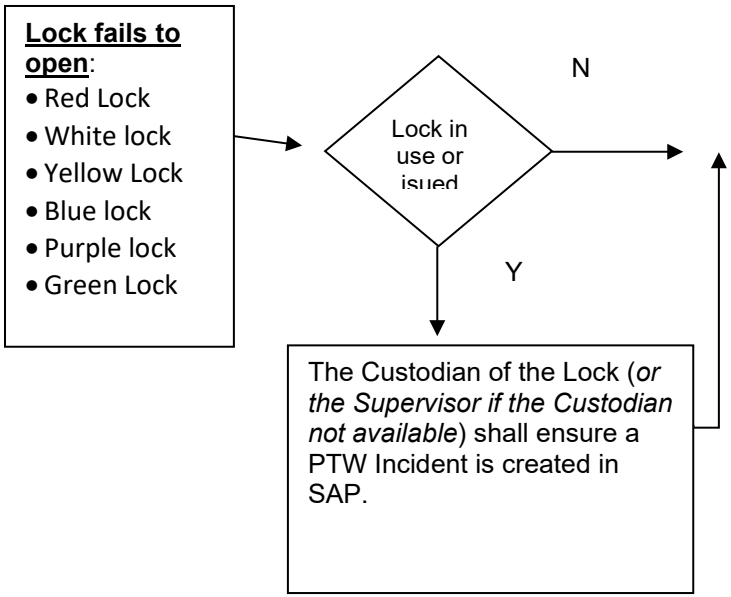
Work Party Member is unavailable (e.g. remains signed on and their lock is still attached to the PTW board)
The OIC shall:

- Confirm the Work Party members identity and location
- Attempt to recall the Work Party member to site.
- If the work party member is not available and it is safe to do so, the OIC removes the lock (and marks the relevant space on the sign on /off sheet as "Work Party Member unavailable".

Suspending site access
The SPTWO shall notify the Security Hut and request that:

1. The OIC's or Work Party member's site access permissive be suspended (*and shall remain suspended until notified otherwise by the SPTWO*).
2. Security inform the OIC or Work Party member that:
   a. the suspension is due to some aspect of a PTW they were associated with was changed.
   b. they contact their Supervisor for additional information and to arrange the release of the site access suspension.

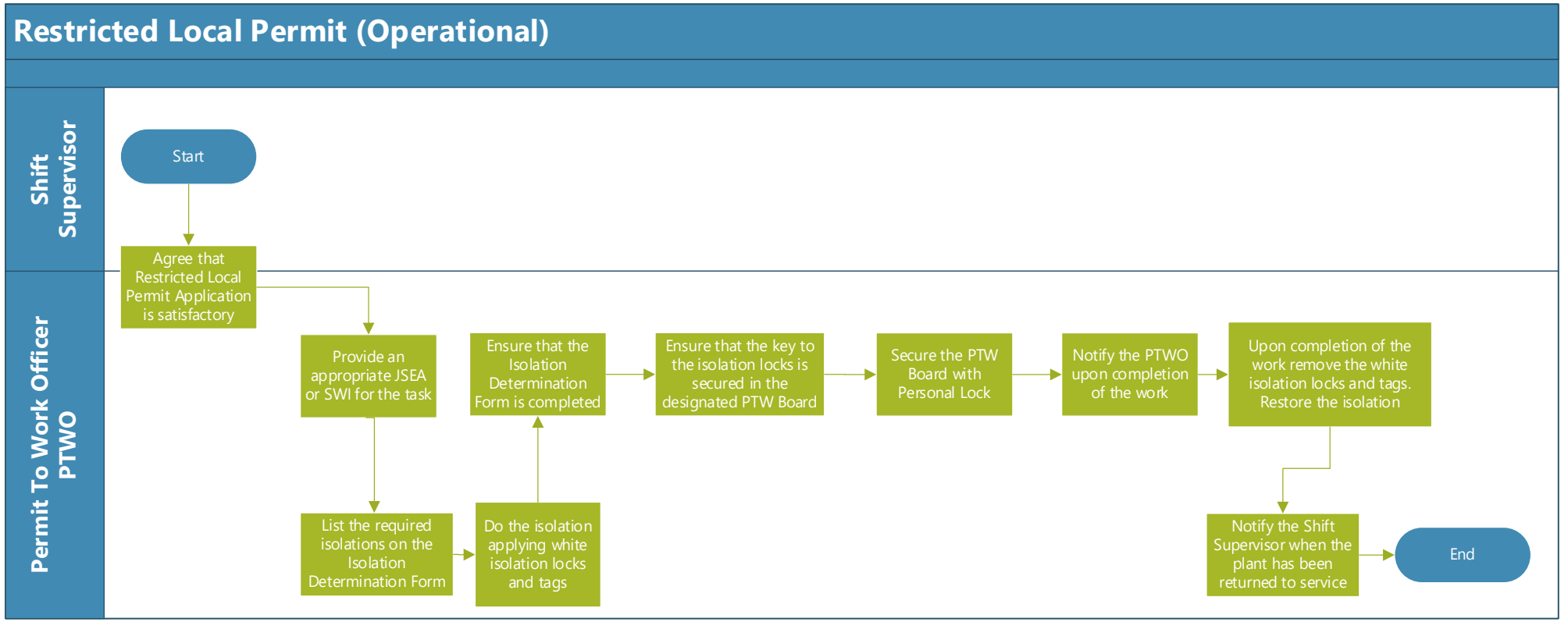
PTWO: Consider setting the WCD and WCA to draft and altering the lock number if other locks are to be utilised (i.e. Allow return of the second key)



"LOCK FAILS" OPTIONS TO SELECT
All options shall require the utilisation of the Form S2221 - PTW Administrator Approval for Key and Lock Issues B/D/16/4664

Option 1: Lock will be destroyed.
PTWO: Request the approval from the PTW Administrator to forcibly remove the lock (i.e. Grinder, bolt cutters or hacksaw etc).
PTWO: Consider setting the WCD and WCA to draft and altering the lock number if there is a need to relock.
Template Officer: Remove the lock or series from the relevant lock register. Consider ordering a new lock. Note that it is acceptable to edit the number of locks in a lock series. (i.e. Originally series may have had ten locks, could be edited to nine and remain in service as a nine-lock series.)
PTWO, OIC or Work Party Member: Issue or arrange for issue of a new lock and key if required as per the site's procedure.

17.3 Restricted Local Permit Isolation (Operational)



18 DEFINITIONS

Term	Definition
B/D/11/19579	CS-PTW-02 - Permit to Work (PTW) Definitions - 2019

19 REFERENCES

Reference No	Reference Title	Author
B/D/20/16008	Procedure - CS-PTW-SOP-15 - Draft a WCD / Set and Prepare	CS Energy
B/D/20/16022	Procedure - CS-PTW-SOP-16 - PTW Suspension	CS Energy
B/D/20/16505	Procedure - CS-PTW-SOP-18 - PTW Issue / Commence Work / Surrender	CS Energy
B/D/20/16016	Procedure - CS-PTW-SOP-17 - Restricted Local Permit - Maintenance	CS Energy
B/D/20/16587	Procedure - CS-PTW-SOP-19 - WCA Application / Draft / Approval	CS Energy
B/D/18/14824	CS-PTW-SOP-10 – BESS Paper PTW System (BESS) or	CS Energy
	CS-PTW-SOP-21 – Coal Paper PTW System (other CSE sites)	CS Energy

20 RECORDS MANAGEMENT

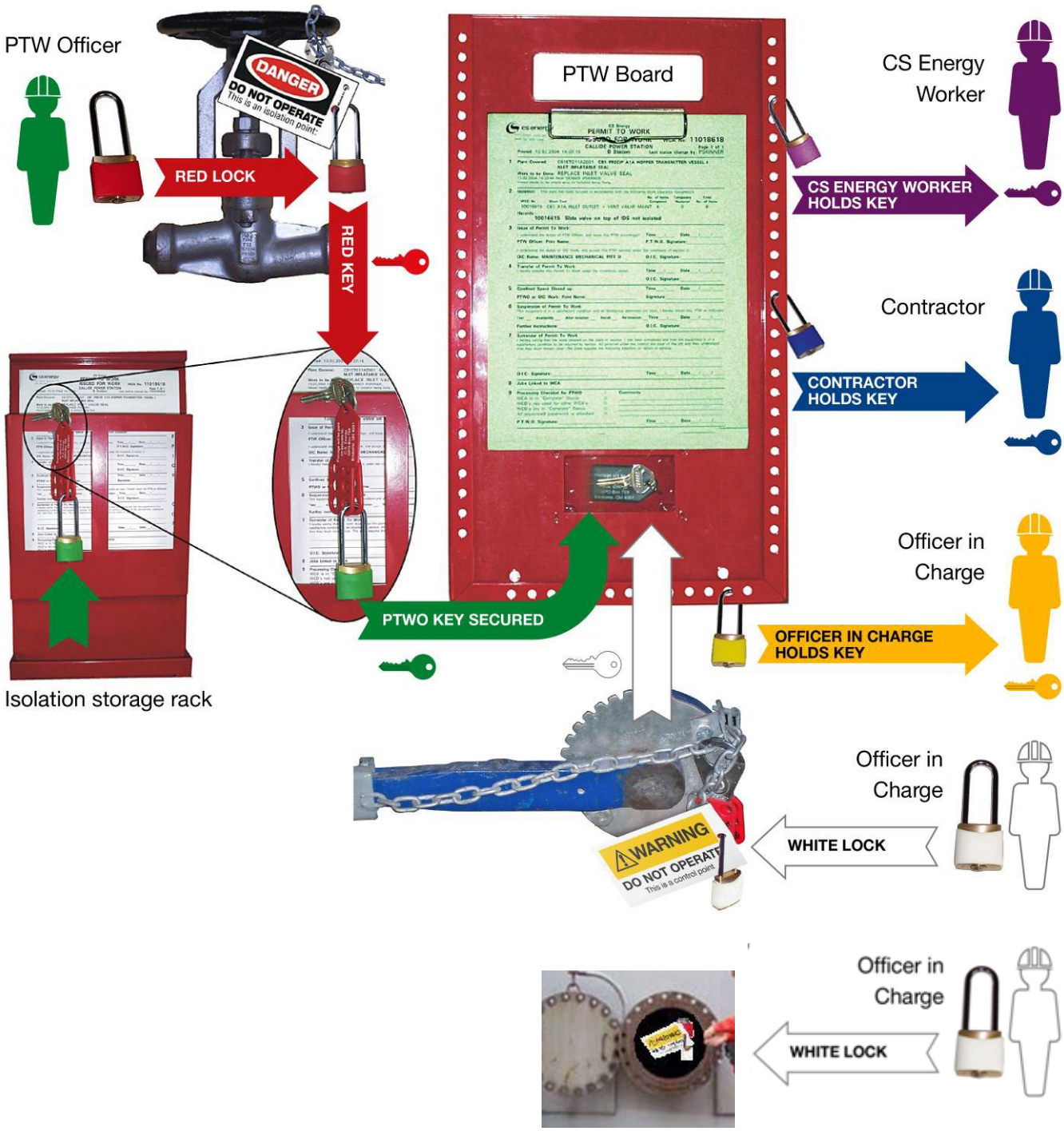
In order to maintain continual improvement, suitability, safety and effectiveness of the organisation, registered documents will be reviewed on a two-yearly basis or at intervals specified by legislative or regulatory requirements. Review of controlled documents should occur where it has been identified that there are changes in technology, legislation, standards, regulation or where experience identifies the need for alteration to the content. Registered documents should also be reviewed following an incident, change management process, modification or where directed as part of a risk assessment process. A 'review' can simply mean that it has been identified, confirmed and appropriately recorded that no changes are required and that the existing process remains the same.

Government Owned Corporations must ensure that records are retained according to accountability, legal, administrative, financial, commercial and operational requirements and expectations. In compliance with records retention and disposal, all documentation created in relation to business must be retained in line with minimum retention periods as detailed in legal retention and disposal schedules.

21 ATTACHMENTS

21.1 Attachment 1 – Basic Locking Process

The process below depicts the standard human-lock interface at each phase of the PTW System.



21.2 Attachment 2 - Lock and Key Characteristics

21.2.1 Preceding Notes for Attachment #2.

CS Energy utilises a number of locks across CSE sites.

Yellow, Green, Blue and Purple locks are uniquely keyed (i.e. one key fits one lock)

White and Red locks are available as either an individual lock with a unique key or one lock of a series of locks (up to 50 locks) that are operated by one key unique to this series.

The PTW Administrator is the custodian of a master key capable of opening any lock at their site.

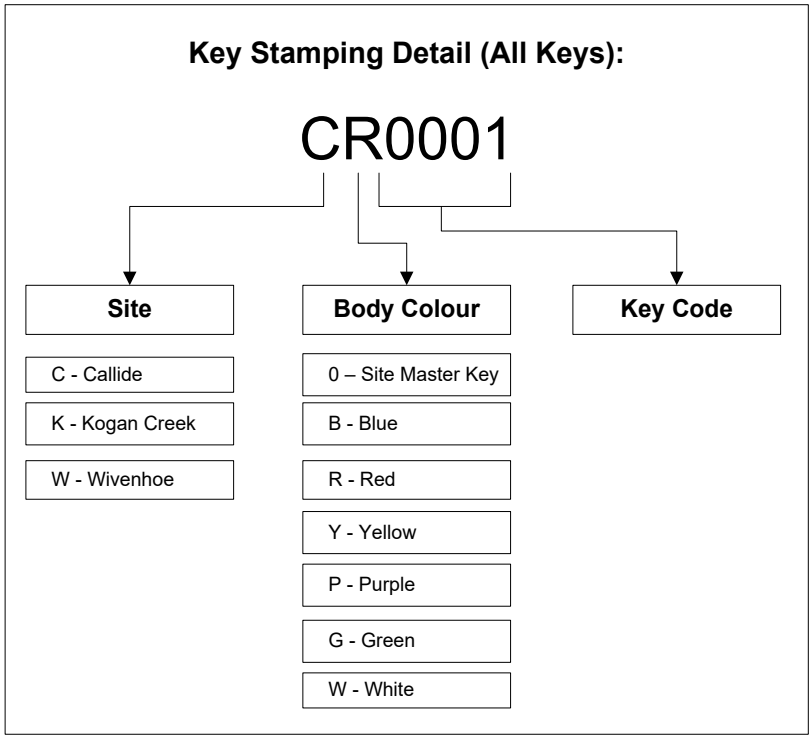
A secured “spare key lock box” containing a spare key for each lock and series is maintained at each site. The PTW Administrator manages access to this lock box.

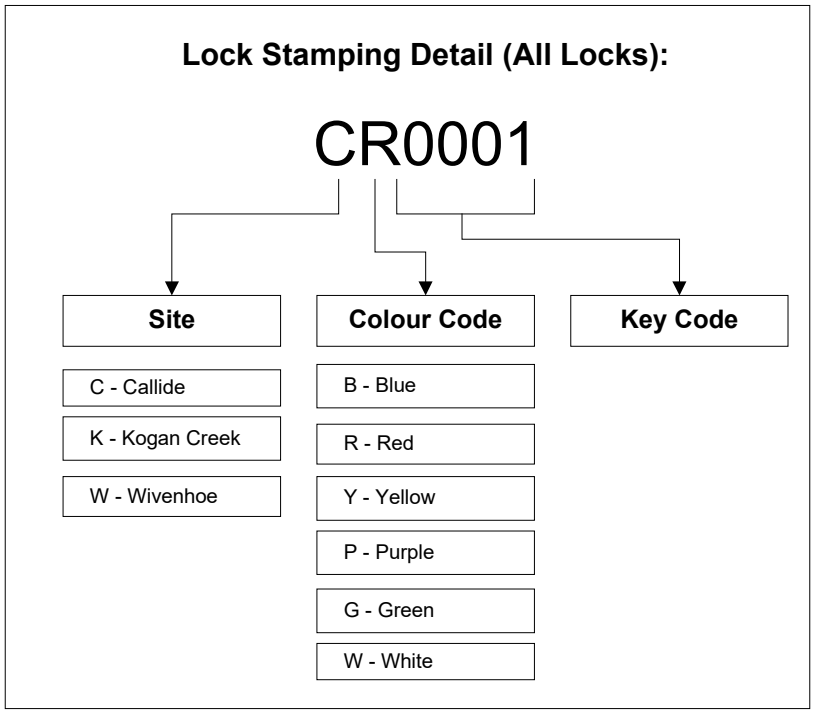
21.3 Attachment 2 – Table of Lock and Key Characteristics

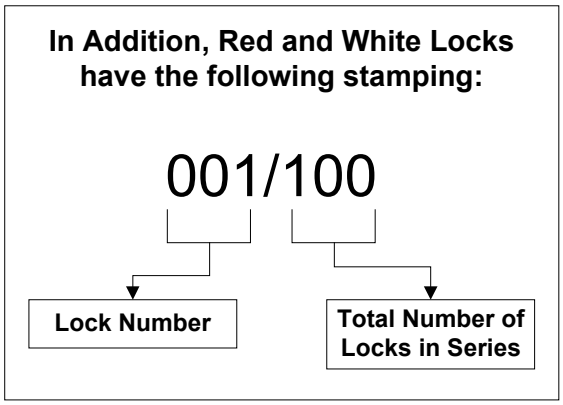
Lock & Key	Intended User / Use	Characteristics
	Green **PTWO**	**Prevents access to the key of a series of red Isolation locks** • Locks and their keys to be stored at the issue point • One key per lock • Lock to be fixed to Isolation Storage Rack to control access to Red Isolation Key • Key to be placed in the PTW Board during PTW issue
	Yellow **OIC**	**Prevents access to the green and/or white key** • Locks and their keys to be stored within issue point • One key per lock • Lock to be fixed to PTW Board upon accepting the PTW Key to be held by the OIC
	Purple **CS Energy Personnel**	**Prevents access to the green and/or white key** • Personal Lock and key is the property of a CS Energy employee • Each lock is issued and recorded by CS Energy • One key per lock • Lock to be fixed to PTW Board when the person has 'signed on' to a PTW, Key to be held by the CS Energy individual
	Blue **Contracted Personnel**	**Prevents access to the green and/or white key** • Personal Lock and key is the property of a contracted employee • Each lock is issued and recorded by CS Energy • One key per lock • Lock to be fixed to PTW Board when the person has 'signed on' to a PTW , Key to be held by the individual •
	Red **Isolation Lock**	**Hung on Isolation Points to prevent their status from being altered** • Series of locks and their key to be stored at issue point • One key per series of red locks • A lock series may consist of varying quantities • Key to be secured on Isolation Storage Rack by Green lock following isolation
	Red Plastic **Isolation Lock**	**Hung on Isolation Points to prevent their status from being altered** • Plastic locks shall be used in electrically conductive environments • Series of locks and their key to be stored at issue point • One key per series of red locks • A lock series may consist of varying quantities • Key to be secured on Isolation Storage Rack by Green lock following isolation
	White **Point of Control Lock (POC)**	**Two uses within the system:** 1. **Provides OIC control to nominated PTW isolation points *on* the plant (e.g. Air Heater rotation)** 2. **To secure confined space entry or ventilation points** • One key per lock or series of white locks • A lock series may consist of varying quantities • Hung on a point that is controlled by the OIC of the job • Key is to be placed within the PTW board after the white lock is applied

21.4 Attachment 3 - Lock and Key Identification

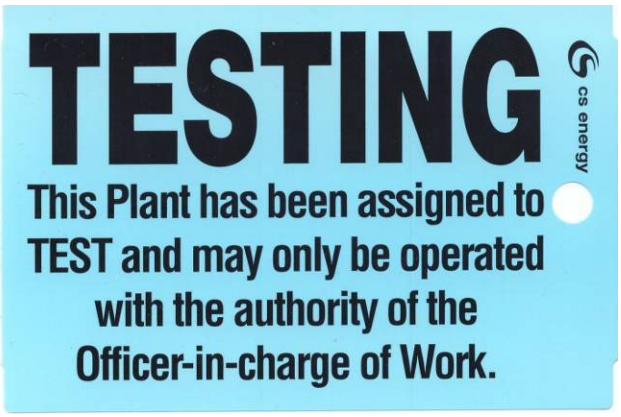
Each lock is uniquely identified. The following identifies the key and lock stamping system found on each lock in the PTW System.







21.5 Attachment 4 - Example Danger Tag, Test Tag and POC Tag



21.6 Attachment 5 - Example PTW (WCA) – Issued for Work (2 pages)

CS Energy

PERMIT TO WORK

ISSUED FOR WORK WCA No: **44029400**

KOGAN CREEK POWER STATION P/L Page 1 of 2

Printed: 28.10.2014 09:29:08 **A Station** **Prepared by:** KAL SADARAM

1 **Plant Covered:** KA10EBC22 UNIT 1 COAL PLANT SECONDARY CRUSHER 2 SYST EM

Work to be Done:
REPLACE WEAR PLATES AND TILES (LT).

require both streams to be isolated due to hot work but require two seperate WCD's in case of PTW returned for coaling on one stream (this will mean hot work will have to be completed)

confined space door
Top south side crusher door
eac 82 head chute

Return Date: 03.11.2014 19:00:00

2 **Isolation:** This plant has been Isolated in Accordance with the following Work Clearance Document/s.

WCD No 40025400 Green Lock Series KG0031
Short Text REPLACE WEAR PLATES AND TILES (LT)
Grid Reference PTW Office 9 Red/White Lock Series KR0413, KW0361

Hazards:

44029400 Hot Work
Confined Space Entry Sign On Sign off
Part 2: Confined Space Rescue Plan
Part 3: Atmospheric Testing
Part 1: Confined Space Risk Assessment

3 **Issue of Permit To Work:**

I understand the duties of PTW Officer, and Issue this PTW accordingly:

Issuing PTW Officer: _____ **P.T.W.O. Signature:** _____

Time____:____ **Date**____/____/____

I understand the duties of OIC Work, and accept this PTW isolated under the conditions of section 2:

OIC Name: MECHANICAL TRADESPERSON - GEOFF MALONEYO.I.C.
Signature: _____

4 **Transfer of Permit To Work:**
I hereby transfer this Permit To Work under the conditions stated: **Time**____:____ **Date**____/____/____

O.I.C. Signature: _____

Reason

5 **Confined Space Closed up:** **Time**____:____ **Date**____/____/____

OIC Work: Print Name: _____ **Signature:** _____

6 **Suspension of Permit To Work:**
This equipment is in a satisfactory condition and all Workgroup personnel are clear, I hereby return this PTW as indicated:

Test __ **Availability** __ **Alter Isolation** __ **Recall** __ **Time**____:____ **Date**____/____/____

Further instructions: _____

O.I.C. Signature:

ISSUED FOR WORK

CS Energy

PERMIT TO WORK

ISSUED FOR WORK WCA No: 44029400

KOGAN CREEK POWER STATION P/L Page 2 of 2

Printed: 28.10.2014 09:29:08 **A Station** **Prepared by:** KAL SADARAM

7 Surrender of Permit To Work

I hereby certify that the work detailed on the plant in Section 1 has been completed and that the equipment is in a satisfactory condition to be returned to service. All personel under my control are clear of the job and they understand that they must remain clear. The plant requires the following attention on return to service.

_____

_____

O.I.C. Signature:_____ **Time**____:____ **Date**____/_____/_____

8 Jobs Linked to WCA

9 Processing Checklist for PTWO **Comments**

WCA is in "Complete" Status	_____
WCD's not used for other WCA's	_____
WCD's are in "Complete" Status	_____
All associated paperwork is attached	_____
All OIC Comments have been considered	_____

P.T.W.O. Signature:_____ **Time**____:____ **Date**____/_____/_____

ISSUED FOR WORK

21.7 Attachment 6 - Example of Work Clearance Document (WCD) (3 pages)

CS Energy Ltd
ACN 078 848 745

CS Energy

WORK CLEARANCE TEMPLATE DRAFT

KOGAN CREEK POWER STATION P/L

A Station

WCD No: 94000511

Page 1 of 3

Printed: 28.10.2014 09:24:45

Plant Isolated: KA10EAC51 — **UNIT 1 COAL PLANT TRIPPER CONVEYOR 1 SYSTEM**

Work to be Done: DT KA1 EAC41/ 51 CLEANING / MECHANICAL MAINTENANCE

Grid Reference:

Special Requirements:

```
This WCD Template covers mechanical work on

KA10EAC41 UNIT 1 COAL PLANT BUNKER FEED CONVEYOR 1 SYSTEM
KA10EAC51 UNIT 1 COAL PLANT TRIPPER CONVEYOR 1 SYSTEM

THIS TEMPLATE DOES NOT INCLUDE
COAL SAMPLER.

For Confined Space entry the following WCD Templates are required.

94004800 KA1 STREAM 1 POC LOCKS.
```

Lock Series:

Lock and Tag information:

Number of Red Locks: 8

Number of White Locks: 0

Tag Information:

Tagging Sequence->	Total No. of Danger Tags: 8	Total No. of Test Tags: 0	Total No. of Poc Tags: 0
Un-Tagging Sequence ->	Total No. of Danger Tags: 0	Total No. of Test Tags: 0	Total No. of Poc Tags: 0

Item Information

Initial Tag Status ITG	Tags Printed but not hung PTAG	Ready for 2nd Check 2 CHK	Checked CHKD	Restored EUG	Temporary Restored ETUG	Total No. of Items
9	0	0	0	0	0	9

CS Energy Ltd
ACN 078 848 745

CS Energy

WORK CLEARANCE TEMPLATE DRAFT

KOGAN CREEK POWER STATION P/L

A Station

WCD No: 94000511

Printed: 28.10.2014 09:24:45

WORK CLEARANCE TEMPLATE Steps

Item No.	Location	Description	Operation	Tag Qty	Template Only	Template Only
10	CONTROL ROOM	KA10EAC 41 / 51 / TRIPPER CAR	> INFORM CONTROL ROOM THAT YOU REQUIRE THIS PLANT OUT OF SERVICE FOR ISOLATION	PNL	To be Done _____	Checked by _____
20	COAL HANDLING SWITCHROOM 10BJG01	UNIT 1 COAL PLANT BUNKER FEED CONVEYOR 1 DRIVE CIRCUIT BREAKER KA10EAC41AF001-Q01	> ISOLATOR TO OFF > LOCK & TAG CB	DTL 1	To be Done _____	Checked by _____
30	COAL HANDLING SWITCHROOM 10BJG07.BA001	UNIT 1 COAL PLANT BUNKER FEED CONV 1 BRAKEMOTOR CIRCUIT BREAKER KA10EAC41AU001-Q01	> ISOLATOR TO OFF > RACK OUT CB > LOCK & TAG CB	DTL 1	To be Done _____	Checked by _____
40	COAL HANDLING SWITCHROOM 10BJG04.EB	UNIT 1 COAL PLANT TRIPPER CONVEYOR 1 DRIVE CIRCUIT BREAKER KA10EAC51AF001-Q01	> ISOLATOR TO OFF > RACK OUT CB > LOCK & TAG CB	DTL 1	To be Done _____	Checked by _____
50	COAL HANDLING SWITCHROOM 10BJG07.BA003	UNIT 1 COAL PLANT TRIPPER CONV 1 TRIPPER CAR CIRCUIT BREAKER KA10EAC51AF002-Q01	> ISOLATOR TO OFF > RACK OUT CB > LOCK & TAG CB	DTL 1	To be Done _____	Checked by _____
60	COAL HANDLING SWITCHROOM 10BJG07.BA002	UNIT 1 COAL PLANT TRIPPER CONV 1 BRAKEMOTOR CIRCUIT BREAKER KA10EAC51AU001-Q01	> ISOLATOR TO OFF > RACK OUT CB > LOCK & TAG CB	DTL 1	To be Done _____	Checked by _____
70	COAL HANDLING SWITCHROOM 10BJG04.BA002	UNIT 1 COAL PLANT TRIPPER CONV 1 DUST COLLECTION UNIT AIR COMP CIRCUIT BREAKER KA10EAC51GH002-Q01	> ISOLATOR TO OFF > RACK OUT CB > LOCK & TAG CB	DTL 1	To be Done _____	Checked by _____
80	COAL HANDLING SWITCHROOM 10BJG04.BA001	UNIT 1 COAL PLANT TRIPPER CONV 1 DUST COLLECTION UNIT FAN CIRCUIT BREAKER KA10EAC51GH001-Q01	> ISOLATOR TO OFF > RACK OUT CB > LOCK & TAG CB	DTL 1	To be Done _____	Checked by _____

CS Energy Ltd
ACN 078 848 745

CS Energy

WORK CLEARANCE TEMPLATE DRAFT

KOGAN CREEK POWER STATION P/L

A Station

WCD No: 94000511

Printed: 28.10.2014 09:24:45

WORK CLEARANCE TEMPLATE Steps						
Item No.	Location	Description	Operation	Tag Qty	Template Only	Template Only
90	EAC51 TRIPPER CAR PLATFORM	(NO KKS) UNIT 1 COAL PLANT TRIPPER CONVEYOR 1 DUST COLLECTION UNIT AIR COMP DRAIN VLV	> OPEN DRAIN > PROVE DEPRESSURISED > LOCK & TAG HANDLE	DTL 1	To be Done _____	Checked by _____
	End of TEMPLATE Steps					

21.8 Attachment 7 - Example Work Party Sign On/Off Sheet

Work Party: Sign-On Sign-Off Sheet

Permit to Work WCA #: 44029400 Sheet # 1
Officer in Charge OIC : MECHANICAL TRADESPERSON - GEOFF MALONEY

ITEM OF PLANT : UNIT 1 COAL PLANT SECONDARY CRUSHER 2 SYSTEM

WORK TO BE PERFORMED :
REPLACE WEAR PLATES AND TILES (LT).

Person in Charge of Work
I understand and accept the scope of work and the conditions stipulated on the PTW and by OIC. I also acknowledge that I am accepting responsibility to supervise the Work party and their adherance to the conditions and controls as described to them by the OIC/PICW. _____ (Please print name) _____ (Please sign name) (You will also need to sign on below)

WORK PARTY Sign on/Sign off check sheet

By **"Signing on"** below you acknowledge that you have a clear understanding of:
- The conditions detailed on the PTW
- The scope of work
- The limits of the isolation
- The physical limits of access and associated risks and hazards
- The controls detailed on the JSEA

By **"Signing off"** below, each member must be aware that access to the plant is now prohibited and that the plant must be considered as in service.

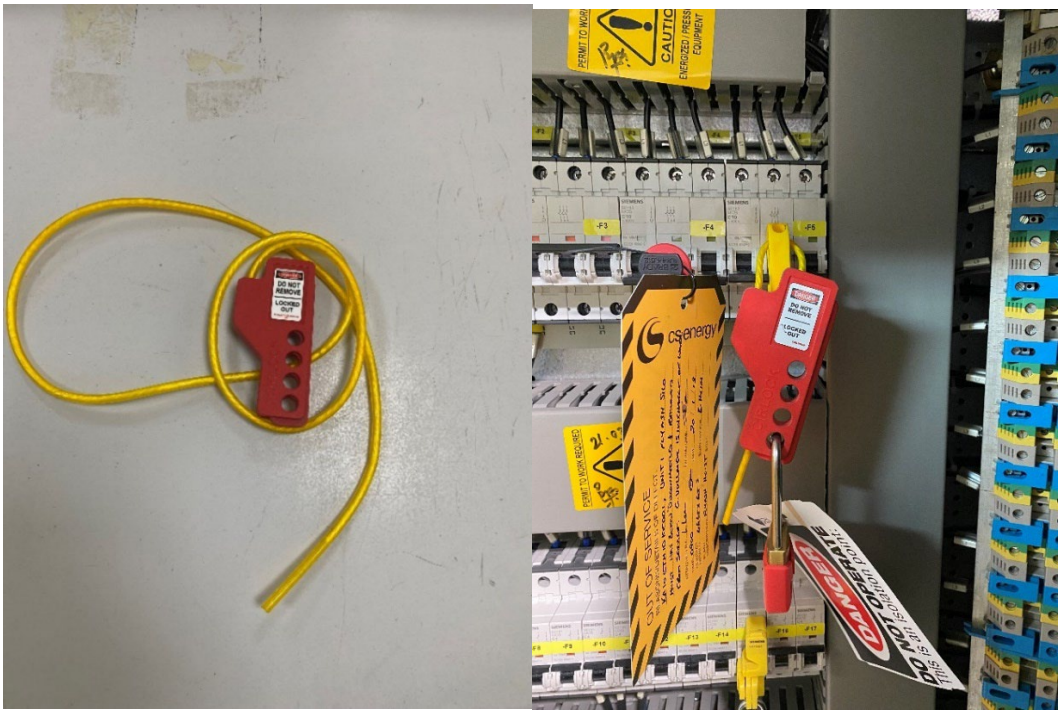
WORK PARTY SIGN ON				WORK PARTY SIGN OFF		
Print Name	Signature	Time	Date	Signature	Time	Date

21.9 Attachment 8 – Typical Examples of Isolation Hardware and their Applications,

The following are examples of isolation hardware that is used across site. **All isolations are required to be effective**.

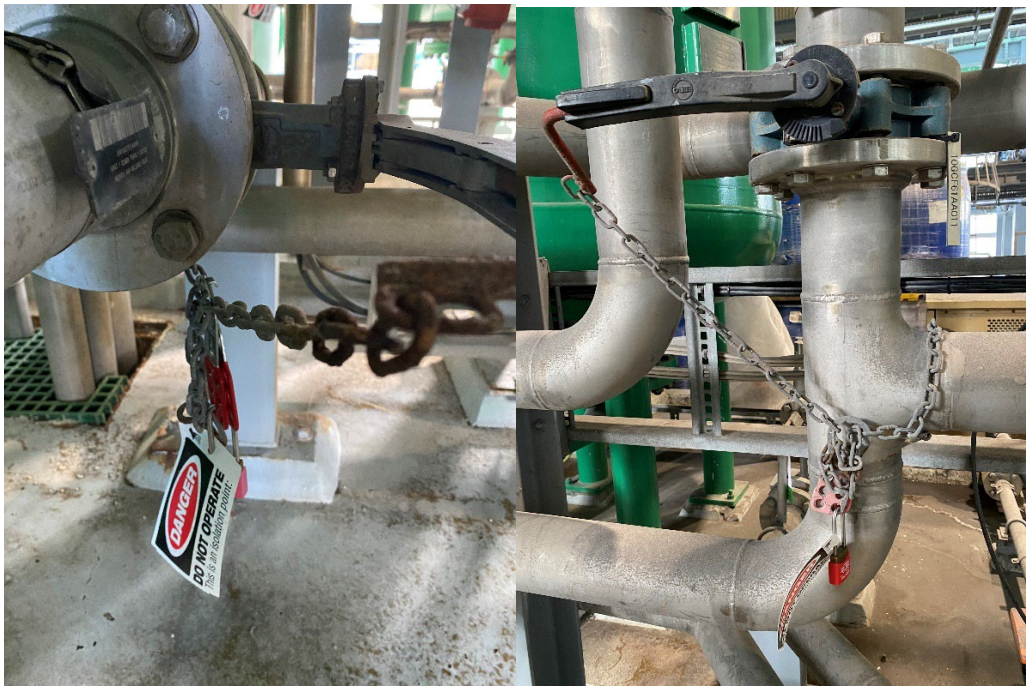
For locking gate valves these come in various sizes

Lockout device for Ball Valves



Lanyard and Lock Multiple Uses
Non-conductive Lanyard only to be used in Electrical Cubicles
Lanyards not to be used to prevent the rotation of the shaft on a CFS

Metal Hasp – Not to be used in electrically conductive environment. Multiple uses for isolations and also useful for multiple locks on a single point



Chains used with or without Hasp and Red Locks - Multiple uses for isolations, and multiple locks on a single point

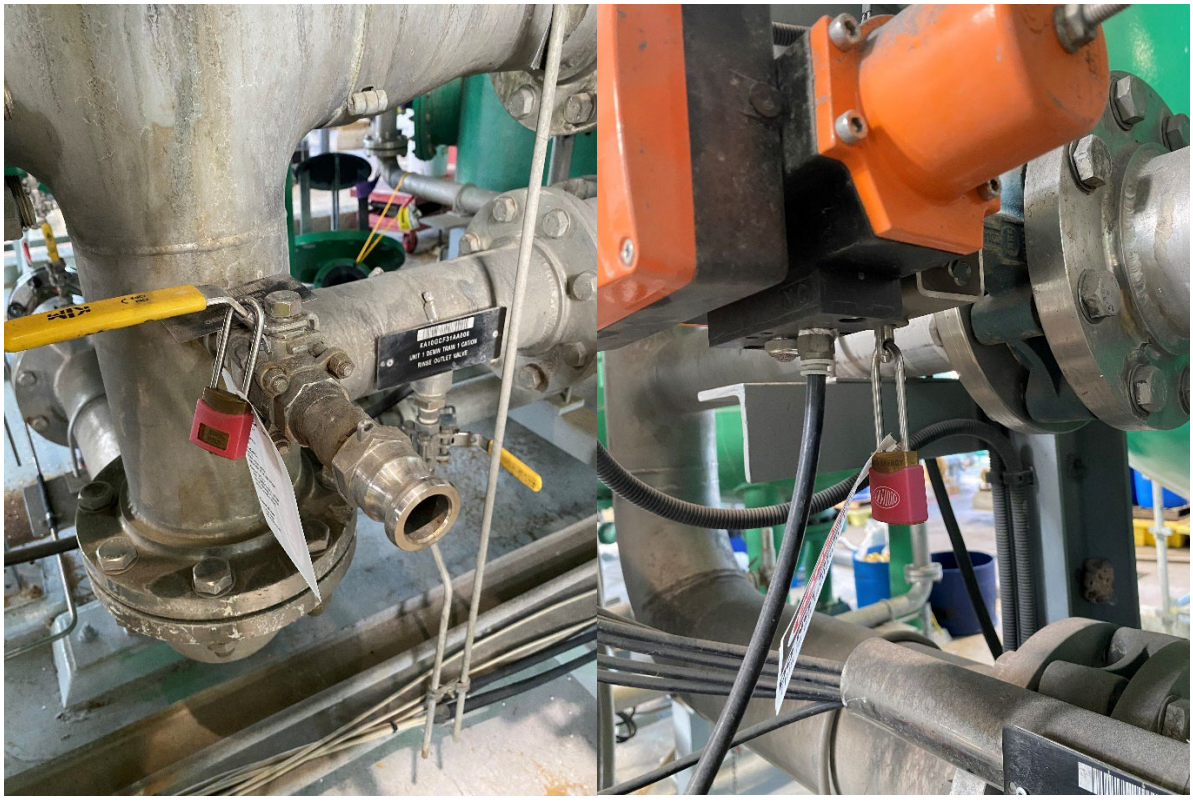
Lock out devices for Circuit Breakers

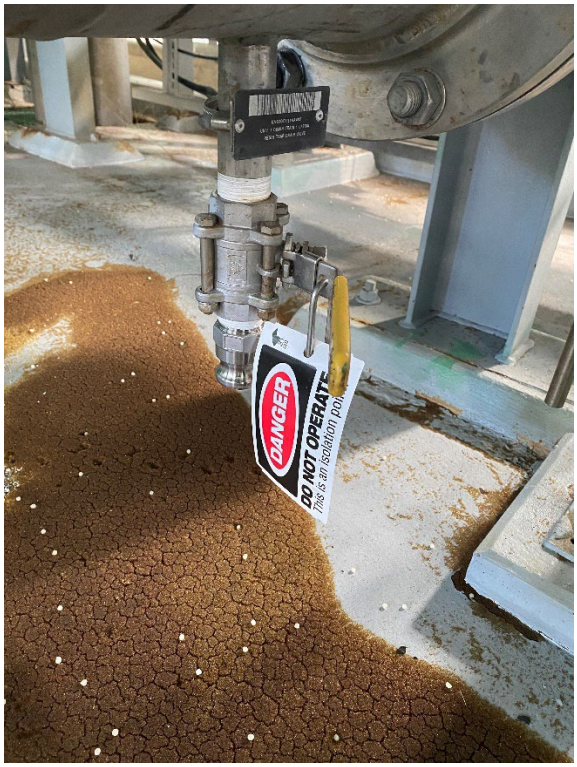
Alternative Style Lock out device / clamp for Circuit Breakers

Lockout device for fuses

Encapsulation device for isolation of plugs and hoses

Lockout Device for Blanks / Blinds





Red Lock / Tags used on multiple types of Isolations

Plug Lockout Bag – Power or Hose Isolations

Hasps – Plastic hasps used in electrically conductive environments, metal hasps not to be used in electrically conductive environments.

CFS Cabinet Internal Isolations

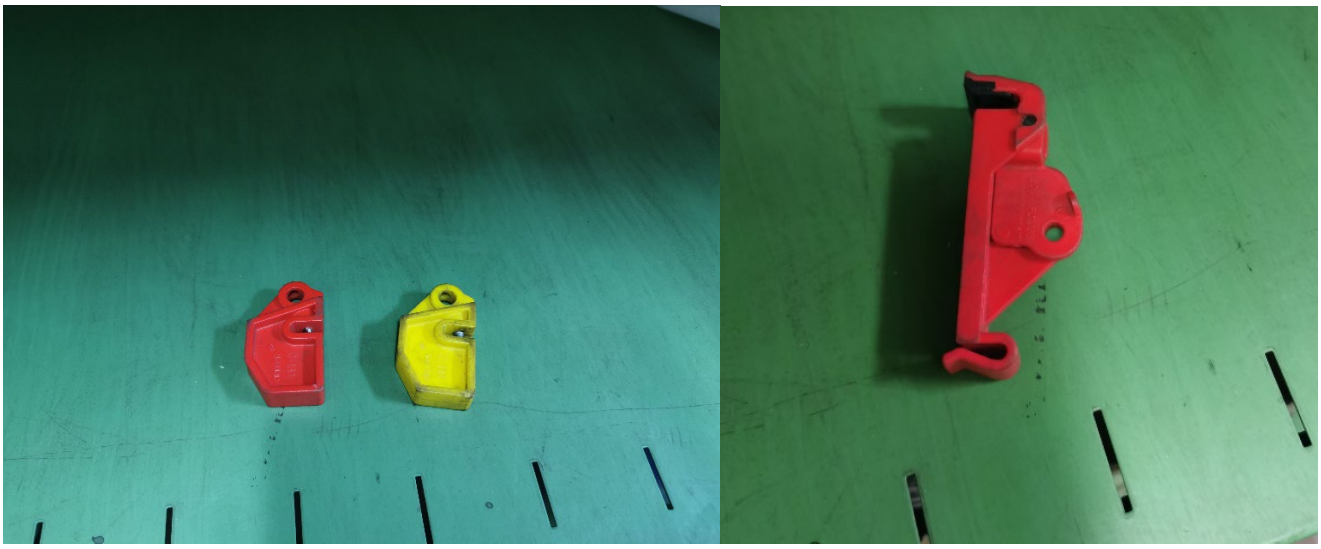
Magnetic Sign used for awareness when Isolations are installed inside a cabinet

Custom device for use locking out handwheel engagement lever on motor operated valves

Blank Flange

Custom Device for use on Callide B Turbine Trip Lever

Custom Device for use on Callide B Turbine Reset Lever



Fuse Lockout Devices

Isolation of spooling where valves are not present