

Queensland Electricity Generators

Permit To Work

Code of Practice

TABLE OF CONTENTS

FOREWORD	3
INTRODUCTION	4
1.0 PURPOSE	5
2.0 SCOPE	5
3.0 DEFINITIONS	6
4.0 PRINCIPLES OF THE PERMIT TO WORK SYSTEM	7
5.0 RESPONSIBILITY OF EACH SITE	8
6.0 IMPLEMENTATION OF THE PTW SYSTEM	9
6.1 Application for a PTW	9
6.2 Identify the Hazards and perform a Risk Assessment	9
6.3 Preparing a PTW	10
6.4 Isolating the Plant	10
6.5 OIC Checking the Isolation	10
6.6 Issuing the PTW	10
6.7 Managing the Work Area after issue of the PTW	11
6.8 Suspending the PTW	11
6.8.1 Test	11
6.8.2 Availability	12
6.8.3 Alter <i>Isolation</i>	12
6.8.4 Recall	12
6.9 Surrendering the PTW	12
6.10 Restoring the Plant	12
6.11 PTW System Coordination	13
6.12 Own Isolations	13
7.0 REVIEW	13

* * * * *

Foreword

Safety is of paramount importance for all Queensland Electricity Generators.

We firmly believe that every employee has a responsibility to maintain a safe work environment. Management must provide the systems that make this possible.

This “*Permit to Work - Code of Practice*” manual is provided to ensure the safety of all individuals who are required to work on plant at the Generating Stations within Queensland.

This Code of Practice may be supplemented by more detailed work practices to suit local circumstances and will form part of our obligations under the “*Workplace Health and Safety Legislation*”.

It is essential that all employees strictly adhere to this Code of Practice to ensure safe working conditions and practices.

CS Energy Ltd.

Richard Cottee
Chief Executive Officer

Collinsville Power Station

Jeff Anderson
Station Manager, Collinsville Power Station

NRG Gladstone Operating
Services Pty. Ltd.

Bob Truscott,
General Manager, Gladstone Operations

Stanwell Corporation Ltd.

Ted Scott
Chief Executive Officer

Tarong Energy Corporation Ltd.

Alan DuMee
Chief Executive Officer

Oakey Power Station

Tom Young
Generation Manager

Transfield Townsville Pty. Ltd.

David Jones
General Manager Operations

Introduction

This Code of Practice and associated procedures are issued for use by the Queensland Electricity Generators.

This Code of Practice has been written with reference to the following:

- *Workplace Health and Safety Act - 1995*
- *High voltage Isolation and Access Basic Principles 1999 (Department of Mines and Energy)*
- *AS 2865:1995 - Safe Working in Confined Spaces*

The personal safety of individuals is enhanced by adherence to this manual and associated procedures. A breach of these procedures may lead to the withdrawal of a person's authorisation to undertake duties associated with the **PTW** system.

The integrity of the **PTW** system is dependent on everyone accepting that **Danger Tags** are the main identification of **Isolation** points.

If at any point a person has concern for the safety of personnel or plant, that person should cease work and advise the relevant parties.

Individuals are responsible for their own safety.

1.0 Purpose

To detail the minimum requirements for the Permit to Work Systems for Queensland Electricity Generators and ensure compliance with the current Workplace Health and Safety Act and Regulations. The processes and systems outlined in this document assist in minimising the risk to persons engaged in maintenance and operation of power station plant. .

2.0 Scope

Each power station in Queensland must implement a detailed **PTW** system consistent with this Code of Practice.

The **PTW** is the official authorisation for access to power station plant for the purpose of work.. This includes any location where the power station is responsible, and for any power station construction site where the plant has been energised.

Where the equipment to be isolated is normally energised at voltages greater than 1000V AC, then the requirements of the companion publication 'High Voltage **Isolation** and Access Basic Principles shall also apply.

Individual members of a Work Party have an obligation to act responsibly with regard to their own personal safety on the job. It is therefore expected that each person involved must at all times strictly adhere to this document and the supporting site specific procedures and thereby assist in achieving safe working conditions.

3.0 Definitions

Authorised Person	A person with technical knowledge or sufficient experience who has been approved, or has the delegated authority to act on behalf of the organization, to perform the duty concerned.
Danger Tag	A Danger Tag is a safety sign, incorporating the Australian Standard Danger symbol, attached to a point of Isolation bearing the words "DANGER - DO NOT OPERATE". The Danger Tag must also carry the unique identifying PTW number and Tag number corresponding to the associated PTW and its attached Isolation Sheet . The PTW Danger Tag signifies that the apparatus is an Isolation point for a PTW and that this Isolation point must not under any circumstances be interfered with or operated. A Danger Tag associated with a PTW must only be applied or removed by a PTW Officer .
Isolation	The action of removing recognized hazards and energy sources from plant as detailed by the Isolation sheet .
Isolation sheet	An Isolation sheet is the list of operations necessary to achieve the required Isolation . It may also include the operations necessary to restore the item of plant.
OIC	The Officer In Charge of work is a competent and Authorised person who is in charge of the work, access to the work area, and where applicable a Work Party which is operating within a specific PTW Isolation . The OIC is responsible for the PTW once issued and must surrender the PTW on completion of work.
PTW	Permit To Work document, including Isolation Sheet and any other attachments that give official authorisation for work to be carried out on specified plant.
PTW Officer	A PTW Officer is a competent and Authorised person who Isolates the plant, Issues the PTW to allow work to proceed, then on Surrender of the PTW restores the Plant and cancels the PTW .
Test Tag	A Test Tag is a safety sign attached to control points warning that the apparatus is under Test. The Test Tag carries the unique identifying PTW number and Tag number corresponding to the associated PTW . The Test Tag signifies that the apparatus is a control point for the Test and that this control point must not under any circumstances be interfered with or operated unless authorisation is given by the OIC . A Test Tag must only be applied or removed by a PTW Officer .

4.0 Principles of the Permit To Work System

The **PTW** document should detail the following,

- The item of plant to be worked on
- The scope of work to be done
- The time and date of each phase of the **PTW**
- Authorization of an appropriate **Isolation Sheet** and Special Precautions.
- **Isolation**
- The issuing **PTW Officer** and the accepting **OIC**.
- Transfer of the **PTW** to another **OIC**.
- Completion of the Confined Space Close Up.
- Suspension of the **PTW** (see 6.8) to:
 - ◇ Test
 - ◇ Availability
 - ◇ Alter **Isolation**
 - ◇ Recall
- Surrender of **PTW** by the **OIC**.
- Restoration of plant and cancellation of the **PTW**

2. During the planning stage before commencing work a Risk Assessment, either formal or informal, must be performed to determine all Hazards that are present or could be introduced into the work area.
3. All hazards identified must either be isolated by the application of a formal **Isolation** procedure or if impractical to isolate, managed by application of safety precautions and standard work practices.
4. The **PTW**, **Isolation Sheet** and any other attachments must be prepared and then independently checked by persons competent and Authorised in the **PTW** System. The **Isolation** procedure must detail, in the correct order, all actions required to isolate the plant. It may detail in the correct order all action required to restore the plant to service.
- 5 All **Isolation** Points must be placed in the required state and then **Danger Tagged** before the **PTW** is issued to the **OIC**.
6. All persons performing roles within the **PTW** System must be competent and Authorised for such by the management of the power station at which the work is being undertaken.
7. The **OIC** must check that the plant has been isolated in accordance with the prepared **Isolation** Procedure and that the **Isolations** are appropriate for the work to be performed safely.

8. As detailed in site-specific procedures, policies, and subject to a risk assessment, a competent and **authorized person** may perform both the **Isolation** and perform the work.
9. Prior to the suspension of a **PTW**, the **OIC** must ensure that the plant is in a suitable condition for the option nominated.
10. On completion of work the **OIC** must ensure that the item of plant is in a satisfactory condition to be returned to service and surrender the **PTW**.
11. The **OIC** must ensure the **PTW** is available at all times for the scrutiny by others. This means the **PTW** must not be taken off site or locked away.
12. When the **PTW** is surrendered, a person who is competent and Authorised within the PTW System must restore the plant.

5.0 Responsibility of Each Site

Each site must

1. Maintain detailed procedures for the implementation and operation of the **PTW** System
2. Maintain a detailed Training program that ensures persons are competent to carry out their responsibilities. Refresher training to be completed at no greater than two yearly intervals.
3. Maintain a register of all persons Authorised in the **PTW** System stating their area of competence.
4. Maintain an audit process that ensures the principles of the **PTW** System and Site Specific Procedures are being followed.
5. Maintain a Site Induction procedure to ensure compliance with the **PTW** System.

6.0 Implementation of the PTW System

The following definitions and responsibilities are presented to ensure common terminology and understanding by Queensland Electricity Generators.

6.1 Application for a PTW

A request for a **PTW** should be submitted, after considering the full scope of work, work requirements and equipment to be worked on. The application must detail the following information:

- The item of plant to be worked on.
- The scope of work to be done.
- The date & time the **PTW** is required.
- The estimated number of hours to complete the work.
- The estimated completion date.
- Any special requirements regarding the work or access.
- The **OIC** Work who is to receive the **PTW**.

6.2 Identify the Hazards and perform a Risk Assessment

A risk assessment must be performed to determine the required safety precautions and **Isolations**. Generally the risk assessment will be informal and preparation of the **Isolation** procedure may suffice, however detailed site-specific procedures must be required for Hazards identified.

Examples may include, but are not limited to:

- Confined space
- Lifting floor plates
- Removing handrails
- High voltage **Isolation** and access

Safety precautions must be noted on the **PTW** document or attachments. The **OIC** is responsible for identifying all potential hazards present in the work area and any new Hazards that may be introduced during the course of the work. This is usually performed in conjunction with the **PTW Officer**.

6.3 Preparing a PTW

An **authorized person** must prepare the **PTW** Document and associated **Isolation Sheet** including any other attachment which may include, but is not limited to, Confined Space Entry Guide, Sign On / Sign Off Sheet, Air Quality Test Sheet, Drawings.

An independent check of the whole **PTW**, ensuring it is appropriate for the scope of work to be performed, must be performed prior to commencing the **Isolation**.

6.4 Isolating the Plant

Before isolating the item of plant the **PTW Officer** who will be performing the **Isolation** must:

- Check that the **PTW** has been approved by an **authorized person**
- Check that the **Isolation** is appropriate for the scope of work to be done
- Isolate the item of plant adhering to the **Isolation Sheet**
- Place a mark to indicate that each step is complete prior to commencing the next step

Where practical the **Isolation** should be proven to be effective. If the **Isolation** cannot be proven, a risk assessment must be performed to determine whether the work may commence.

6.5 OIC Checking the Isolation

Before commencing work on the item of plant isolated, the **OIC** must check each **Isolation** Point is correct as detailed on the **Isolation Sheet**.

6.6 Issuing the PTW

The **OIC** and **PTW Officer** must confirm that the **Isolation** is appropriate for:

- The item of plant to be worked on
- The scope of work to be done

The **PTW Officer** must also ensure that:

- Known Special Precautions and Hazards identified are detailed and accepted by the **OIC**
- The **PTW** is formally accepted by the **OIC**.

6.7 Managing the Work Area after issue of the PTW

The **OIC** must inform and discuss with the Work Party:

- The scope of work to be done
- The extent of the **Isolation**
- All Hazards identified
- Any Special Precautions taken and / or required
- Their responsibility to notify the **OIC** if new Hazards are identified

The Work Party members have a responsibility to discuss with the **OIC** and understand:

- The item of plant to be worked on
- The scope of work to be done
- The boundaries of the **Isolation** for the work
- Known Special Precautions and Hazards identified.
- The obligation to notify the **OIC** if new Hazards are identified or introduced into the work area

6.8 Suspending the PTW

While the **PTW** is under the control of the **OIC** it may be necessary to suspend the **PTW** for any of the following reasons:

- Testing
- Availability
- Altering **Isolation**
- Recall

For all of these options, the **OIC** must ensure that prior to suspension of the **PTW**:

- That the Work Party is
 - Made aware of the impending change of status of the **PTW**
 - Requested to remain clear of the item of plant
- The item of plant is in a suitable condition for the option to be nominated
- The **PTW Officer** is aware of the condition of the item of plant

The item of plant must be treated as “Live” while the **PTW** is Suspended.

6.8.1 Test

If it is necessary to carry out tests that require **Isolation** points to be altered:

- The **PTW** must be suspended to **Test**

- The **PTW Officer** and **OIC** must agree on the **Isolation** points to be restored and points of control for the test
- The **PTW Officer** then restores the required **Isolation** points and applies **Test Tags** to points of control
- A Test Permit is issued to the **OIC** who must control the test.

6.8.2 Availability

If it is necessary to make an item of plant available for operation when the scope of work under the **PTW** is partly complete:

- The **PTW** must be suspended to *Availability*
- Any instructions required for return to service and reissue of the **PTW** must be endorsed on the **PTW**
- The **PTW Officer** and **OIC** must agree on the date for the plant to be re-isolated

6.8.3 Alter Isolation

If it is necessary to alter the **Isolation** on the original **PTW**:

- The **PTW** must be suspended to *Alter Isolation*
- The **PTW Officer** and **OIC** must agree on the alterations required
- The **PTW Officer** must then amend the **Isolation** and re-issue the **PTW**

6.8.4 Recall

If it is necessary to allow another Work Party to carry out specific work within the boundaries of an issued **PTW**:

- The **PTW** must be suspended to *Recall*
- The **PTW Officer** and **OIC** must agree on the period and the time to re-issue the **PTW**

6.9 Surrendering the PTW

When all work is finished the **OIC** must ensure:

- The item of plant is in a satisfactory condition to be returned to service
- The Work Party is aware of the impending change of status of the **PTW** and therefore must remain clear of the item of plant.
- That the **PTW** document is returned to the **PTW Officer**.

6.10 Restoring the Plant

Following the Surrender of the **PTW**, the **PTW Officer** must:

- Reverse the **Isolation** adhering to the **Isolation Sheet**
- Place a mark to indicate that each step is complete prior to the commencing of the next step
- Ensure that the item of plant is in a satisfactory condition for service.
- Cancel the **PTW** document

6.11 PTW System Coordination

Competent and authorized personnel must administer the day-to-day coordination of the PTW System.

6.12 Own Isolations

As detailed in site-specific procedures, policies, and subject to a risk assessment, a competent and **authorized person** may perform both the **Isolation** and perform the work.

7.0 Review

The Queensland Electricity Generators PTW Committee, to reflect any changes to relevant legislation or standard work practices, must review this Code of Practice, at least every two years.

Each Generator as part of its business review system must develop an internal audit program. Relevant outcomes may be submitted to the Queensland Electricity Generators **PTW** Committee for consideration.

Issue Date	Nature of Changes
16/04/99	Original Issue
05/04/01	Scope and Definitions amended. Work Party references added. Two additional signatories.