

MANUAL

Z's Permit to Work system

HS-IOA-MAN-002



ZORM

Revision Summary

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Prelude

At Z, we reckon everybody should work safely on our sites so we can all go home safely. The Permit to Work System (PTWS) provides a practical framework for our staff and contractors to abide by for certain high risk operational activities. Using the PTWS is one way we can meet our commitment of no harm to people or the environment.

The PTWS is intended to provide an effective means of identifying and managing significant HSSE operational risk activities. In other words, it provides a "set of eyes" that focus on significant operational high risk activities. It helps Z to verify, with contractors and other workers, the required controls that have been identified and established, to manage the level of operational risk associated with hazardous work tasks. The PTWS is also a formal means of communication for all parties involved in the management, supervision, and completion of specified work activities.

The PTWS is a critical risk-management tool and supports Z's Safety and Wellbeing Stand. It is an important part of Z's Operational Risk Management system (ZORM). Most importantly, the PTWS is designed to manage those operational risks that could result in serious or fatal injuries.

A Work Permit is not simply permission to carry out a job. It is an essential part of a system which, through consultation with affected parties, determines how that job can be carried out safely and helps communicate this to those doing the job. It should not be regarded as an easy way to eliminate hazards or reduce operational risk. The issuance of a Permit does not, by itself, make a job safe - that can only be achieved by those preparing for the work, those supervising the work, and those carrying it out. As well as issuing a Work Permit, other controls may be required (for example, process or electrical isolation, or access barriers) and these will need to be identified in the Hazard Identification and Task Risk Assessment before any work is undertaken.

The PTWS is intended to ensure that authorised and competent people have thought about the foreseeable operational risks, and that these risks are eliminated or minimised by using suitable control measures. The workers completing the work should think about and understand what they are doing to carry out their work safely and take the necessary control measures and requirements.

Human factors, such as variability in how people complete work means that the PTWS is an administrative control that requires people to be well trained, to understand the risks they are managing, and to be supported by others who can monitor the performance of the risk controls.

This PTWS manual is intended to provide a clear understanding of Z's PTWS requirements.



1. Introduction

1.1. Purpose

The purpose of this Permit to Work System (PTWS) Manual is to define a minimum safe system for work performed on a Z operational site, and to establish a high standard of safety protection for personnel, plant, and equipment. The PTWS manual provides a framework where work is completed in a safe manner to prevent harm to workers, others affected by the work and the environment.

The PTWS Manual is intended to be comprehensive, but it cannot cover all possible work activities and it is accepted that in certain situations not all aspects of the PTWS can be complied with. Where a deviation from a prescribed procedure, or a scenario that is not clearly identified within the manual arises, a derogation should be obtained using the standard ZORM process and the Hazard Identification and Task Risk Assessment process followed.

The PTWS Manual is a communication and control tool used to plan and control work, and requires common understanding between management, supervisors, operators and those who perform the work.

1.2. Scope

This manual defines the minimum safe system of work for certain high-risk tasks being performed at sites under Z's operational control.

Supporting Safe Work Practices on controls of specific work activities, are referenced in this PTWS Manual. This PTWS Manual and Safe Work Practices, and/or external guidance referenced in the PTWS manual, set out Z's minimum requirements for the control of risks for specific high-risk work.

Except where expressly stated otherwise, the conditions outlined in this PTWS Manual, and associated Safe Work Practices are to be considered as mandatory requirements.

1.3. Applicability

This document applies to all workers conducting work for and on behalf of Z, such as employees, contractors, sub-contractors, franchisees, and retail site staff as well as visitors on premises operated by Z.

The PTWS is mandatory and applies to all work which is identified as potentially hazardous, including work being completed at workplaces under Z operational control like all Network and Supply sites.

The PTWS is to be used in parallel with site safety rules. Manned sites, in particular, may have site-specific safety requirements. In the event of any inconsistency, the more prescriptive standard shall apply.

The Z Life Savers are mandatory behaviours that apply to all work completed for Z and are used in parallel with the PTWS.

The requirements of this document shall apply in addition to any applicable New Zealand laws and regulatory requirements, including the latest codes of practice as issued by the regulator. This document takes precedence only where its requirements exceed those of applicable laws and regulatory requirements.

1.4. Principles

The principles of the PTWS are aimed at adding value in terms of risk reduction to keep workers safe and eliminate or minimise Operational risks to an acceptable level for activities that fall within its application. This will be achieved by the PTWS following these principles:

- Keeping people and the environment safe is the main focus
- Risk based approach considering the severity and type of risk being managed
- Trained, competent personnel involved
- Recordable work permit process
- Clear and simple criteria
- Information is current and up-to-date
- Built-in verification and assurance



1.5. Objectives

The PTWS Manual is aimed at achieving the following key safety objective:

- A set of safe work practices is defined, implemented, and understood by all people involved, to promote safe work practices and ensure:
- Compliance with relevant legislation and standards
- Risks are identified, worksite is inspected, and appropriate controls are put in place and maintained for the duration of the work
- Personnel involved in the work and responsible for operations and safety in the work area, have been properly trained and instructed in safe work procedures and in the use of equipment to be used

1.6. Stop Work authority

All Z employees, site representatives, contractors, and other workers are encouraged to Stop, Think and Act before performing any work. Everyone is authorised to intervene and stop work if they are concerned with work practices that they observe. They can request a conversation and review of the defined safe-work practices before agreeing to recommence work.

If the situation cannot be satisfactorily resolved by discussion, the work shall be stopped, the work permit withdrawn, and the matter brought to the attention of the Permit Issuer. Any person on site may stop any work conducted under the PTWS (and thus void the Work Permit) on the grounds of safety.

Reinstatement of suspended works is subject to revalidation of the permit (by the Permit Issuer), or a new permit completed (refer Section 8).

1.7. Work Permit definition

The terms 'permit to work', 'permit', or 'work permit' refer to the paper or electronic PTWS documents including a Work Permit and task specific certificates used as part of an overall system of work, and which has been devised by Z to meet its specific needs.

Whether it is manually or electronically generated, the work permit is made up of detailed records which authorises certain people to carry out specific work at a specific site at a certain time and sets out the main controls needed to complete the job safely.

1.8. Continuous improvement

All persons using the PTWS are encouraged to help Z continuously improve the PTWS approach. Employees and/or contractors who have suggestions for additions or improvements to the PTWS Manual should submit via the feedback link in The Hub, alternatively contact an SPI to convey the feedback. Peer Reviews of permits, Site PTWS reviews, PTWS internal & external reviews and Task Observations provide a good learning opportunity, and relevant observations should be submitted.

SPI's own the continuous improvement process driven through the PTWS Community of Practice. They will present improvement opportunities identified through internal feedback, external good practices, Learning from Incidents (LFI's) and present to quarterly PTWS Communities of Practice meetings.

The feedback received is reviewed quarterly as part of the PTWS Communities of Practice group. The PTW Administrator will share minutes from the CoP quarterly meetings with all PI's.

PTWS will formally be reviewed every three years or when significant improvements are necessary as defined by ZORM Continuous Improvement Cycle (HS-PRM-PRO-002).

1.9. Use of accredited contractors

Contractors engaged to conduct work on a Z site are considered as 'We're Connected' under Z's PCBU Policy. Such contractors must be prequalified and accredited to do hazardous work (as per the requirements in [HS-CSP-PRO-001 - Z's approach to contractor and supplier management](#)).

Prequalification and accreditation provides a demonstration that the contractor has the necessary systems and process in place to manage operational risks in their given field.

Z uses a third-party provider (ISNetwork) to accredit 'We're Connected' contractors against Z's requirements.



Where a contractor has not been accredited, a derogation must be requested prior to the contractor undertaking any work on a Z site (refer to [HS-MOR-FOR-015 - Request for derogation](#) – refer Section 1.10).

Where a non-accredited contractor has been engaged (and approved through a derogation) to conduct medium risk activities, the activity is to be managed as if it is a high-risk activity.

Where a non-accredited contractor has been engaged by a third-party to work in a Z site (e.g., contractors engaged by landlords) that has the potential to impact of the safety of Z assets and/or personnel, a Work Clearance Form [1024587 - ZEOP049 WCF Work Clearance Form \(sharepoint.com\)](#) is to be completed (refer to section 3.2.1 Third Party Works).

1.10. Derogations to the PTWS

There may be occasions where the requirements of the PTWS requirements cannot be met. In these cases, a derogation request must be requested ([HS-MOR-FOR-015 – Request for derogation](#)). Derogations are approved by the General Manager – Strategy & Risk, supported by the Risk Owner for the activity.

If the derogation is not approved, the activity must not be undertaken until the requirements of the PTWS can be met.

1.11. Work Permit requirements of other parties

There are some cases where, in addition to Z's PTWS requirements, there may be other site or contractor specific requirements that apply when undertaking the work. This may occur in situations such as:

- Z fixed assets located on a customer site, public location, or any other site
- Z engaged contractor working on assets owned by others

In these case, Z's PTWS must be followed as a minimum, and any additional requirements above those set by Z must be complied with as necessary.



2. Definitions and References

There are various acronyms used throughout the content of the PTWS Manual and associated support documents. An explanation of the acronyms has been included in Appendix 1, along with detailed description of the meaning of important terms used in the PTWS Manual.

In the development of this PTWS Manual and associated documents, various external documents have been referenced. A list of external and internal references is included in Appendix 2.

In this PTWS manual and associated support documents, the following words have the described meaning:

Word	Meaning
May	Discretionary
Should	Recommended, but discretionary
Must, Shall, Will	Mandatory, not discretionary



3. Application of PTWS

3.1. Compliance with PTWS requirements

The PTWS must be followed for all work performed within the boundaries of a Z managed process, asset, or site facility. These sites have been defined as Network sites and Supply sites (refer to *Appendix 1 – Glossary* for definition of these terms).

In all cases it is the level of risk that certain work presents that determines the PTWS documentation required (refer *Section 7*) and the involvement of PTWS specialised roles (refer *Section 4*).

“Work” that will follow the PTWS requirements include:

- Maintenance activities, certain inspections, demolition, construction
- Non-routine movement or handling of product
- Routine operating activities or work carried out in changed or changeable circumstances
- When there is a potential for a hazard to arise, or energy release to occur
- Excavation, work at heights, asbestos work, radiographing

Any other high-risk tasks in addition to what is mentioned in this PTWS Manual, Z's Safe Work Practices for specific high-risk activities must be followed, as well as any applicable mandatory external requirements that sit outside this PTWS.

3.2. When compliance with the PTWS may not be required

Complying with the PTWS may not be required when:

- The work being carried out is a routine operating activity covered by a Standard Operating Procedure (SOP) (refer to *Section 6.1.2.1*). Each location must regularly review its SOPs and routine operations to identify any high-risk task that should be covered by a work permit
- Work where no tools are required, e.g., visual inspection only
- The work being performed in a designated workshop and has been risk assessed
- The work is being performed to prevent the escalation of an immediate emergency and an Emergency Response Plan is enacted
- The work is being performed on Z equipment, removed for the purpose of repair, at a third-party site

Work is being conducted by a third party in the vicinity of a Z site (refer to *Section 3.2.1*) Special written authorisation has given by the PTWS Owner

3.2.1 Third party works

Third party works is work conducted by a contractor not engaged by Z, that has the potential to impact of the safety of Z assets and/or personnel.

Dependant on the planned work, a site representative needs to have an appropriate level of contact and input with contractors performing this work to have confidence that the safety of people and assets will be maintained.

In lieu of a Work Permit, a [Close Approach Clearance Form \(HS-IOA-FOR-003\)](#) will be issued to capture overall scope of the works, and an acknowledgement of works occurring adjacent to Z managed assets, to ensure protection of such assets. Each party will be provided with a completed this form a copy once it has been signed.

The site representative can request the involvement of a PI if additional expertise on the control of works is required.



4. PTWS Roles - Responsibilities

4.1. General

Managing safety, wellbeing, and risks is a shared responsibility at Z. However, when work is being undertaken, certain responsibilities are allocated to specific PTWS roles. Some duties are allocated to more than one group. These must not be ignored on the assumption that the other party will perform them. Each group shall perform the duties as specified.

All work shall comply with the requirements of all applicable statutory legislation and codes. Work carried out under the jurisdiction of external authorities, shall be in addition to the PTWS requirements, and comply with all relevant regulations of these authorities. It is the responsibility of the Contractor Supervisor to identify these regulations and advise the Permit Issuer and other people performing the work what these are.

Table 1 – General Responsibilities

Role	Issue permits	Approves PI competency	PTWS assurance activities	Stop work if necessary
PTWS Owner (Head of Safety, Wellbeing and Risk)	✘	✓ (for SPI)	✘	✓
General Manager – Operational Business Unit	✘	✓ (for SPI)	✘	✓
PTWS Custodian (SW&R Systems and Performance Manager)	✘	✘	✓	✓
SW&R Business Partners	✘	✘	✓	✓
PTWS Administrator (SW&R Systems Specialist)	✘	✘	✓	✓
PTWS Trainer	✘	✘	✓	✓
Senior Permit Issuer (SPI)	✓	✓	✓	✓
Permit Issuer (PI)	✓	✘	✓	✓
Designate	✘	✘	✓	✓
Permit Holder (PH)	✘	✘	✘	✓
Z Site Representative	✘	✘	✘	✓
Workers	✘	✘	✘	✓
Z Staff	✘	✘	✘	✓

✘ Is not responsible and cannot undertake the task or role

✓ Is responsible and can undertake the task or role

Important notes

- No self-permitting is allowed by any role (refer Section 8.7)
- Everyone at Z, or working for Z, has a responsibility to intervene in unsafe work and this includes using their Stop Work Authority to intervene in work covered by the PTWS (refer Section 1.6)



4.2. PTWS roles and responsibilities

4.2.1 PTWS Owner

The Head of Safety, Wellbeing, and Risk (SWR) at Z has overall ownership for Z's safety, wellbeing, and risk management processes, including the PTWS. The Head of SWR is accountable for ensuring there is an appropriate PTWS for Z's operations, that the system is used by the business and that there are sufficient resources to enable the PTWS to be effectively implemented.

The PTWS Owner must be familiar with all requirements of the PTWS.

4.2.2 PTWS Custodian

The PTWS Custodian is responsible for maintaining and confirming the implementation of this PTWS. They are appointed by the PTWS Owner must be knowledgeable about the requirements of the PTWS.

The responsibilities are outlined below:

- Monitor the PTWS in accordance with the requirements of the PTWS Manual
- Monitor and evaluate the PTWS outcomes to ensure appropriate safe work systems are established and maintained for all work done under the PTWS
- Implement a PTWS training programme so that those workers involved in the application of the PTWS understand and apply the PTWS requirements
- Appoint the PTWS Administrator
- Agree to an alternative person to a SPI, competent to conduct PTWS training (refer to Section 4.2.8)
- Coordinate audits and reviews the PTWS periodically to ensure its effectiveness and currency with accepted industry practice
- Report to the PTWS Owner on the effectiveness of the PTWS

4.2.3 PTWS Administrator

The PTWS Administrator is the person responsible for administering the PTWS documentation and records requirements. They are appointed by the PTWS Custodian, and they are a Z employee.

The responsibilities of the PTWS Administrator are outlined below:

- Maintain a register of PIs and SPIs, and maintain the training records
- Ensure PTWS documents remain current (including training material, competency questionnaires and task assessment forms)
- Solicit and receive feedback from the users of the PTWS and consult with the PTWS Custodian and Senior Permit Issuers as necessary on the operation of the PTWS
- When new SPI pass the SPI competency assessment (refer Section 5.2) arrange for the new SPI to be issued with a SPI Certificate and for the individuals training records to be updated
- Support PTWS Community of Practice by:
 - Lead planning of meeting, confirm agenda, collate feedback received via the Hub feedback link
 - File finalised meeting minutes in the Safety & Wellbeing PTW Document Library
 - Input actions from meeting into ZORMD

4.2.4 Senior Permit Issuer (SPI)

Specific training and competency requirements for SPIs is included in Section 5.2.

The Senior Permit Issuer(s) (SPI) is responsible for monitoring the operational performance of the PTWS, for conducting periodic operational reviews of the implementation of the PTWS, and for providing assurance to the PTWS Custodian that the PTWS meets Z requirements and is implemented correctly within their Business Unit.

The appointment of a SPI is approved by the Head of SWR and endorsed by the relevant Operational Unit General Manager. An SPI can be a Z employee, or a third party approved contractor.

The responsibilities of the SPI are outlined below:

- Own the continuous improvement process driven through the PTWS Community of Practice
- Solicit and receive feedback from the users of the PTWS and consult with PTWS Custodian and PTWS Administrator as necessary on the operation of the PTWS
- Look for improvement opportunities through external practices and incident reporting and present to quarterly PTWS Communities of Practice meetings



- Provide technical support and advice to ensure the PTWS is implemented as intended
- Approve new Permit Issuers once their competency is confirmed (refer *Section 5.1*)
- Audit and review permit documentation in their area of responsibility
- Review and approve any requests for Hazard Identification and Task Risk Assessments (HITRA – refer *Section 6.2.2*) as required
- Coordinate permit coaching visits to sites as required
- Review and issue permit as required

SPIs also:

- act as the PTWS Trainers for new PI, or assigns a competent person, knowledgeable of the PTWS, to conduct the training (refer to *Section 4.2.8*)
- Identify PIs appropriate to act as a supervising PIs for PIs in training (refer *Step 4, Table 2*)
- When new PI pass the PI competency assessment (refer *Section 5.1*) arrange for the new PI to be issued with a PI Certificate indicating the work permit types they are certified to issue, signed by the SPI, and for the individuals training records to be updated
- If a remote permit is required, an SPI confirms it is appropriate to be issued, with supporting information provided from PI involved in the works.

4.2.5 Permit Issuer (PI)

Specific training and competency requirements for PIs is included in *Section 5.1*.

The Permit Issuer (PI) is responsible for taking all necessary steps to prepare, authorise, and issue the Work Permit after assessing the work and work site and/or area hazards and the controls to address these hazards.

The PI is responsible for setting the conditions of the work permit. The work permit conditions must meet the minimum expectations as set out in this PTWS Manual and will include any other requirements that the PI deems necessary for the safe control of work activities.

It is necessary for the PI to be available to the Permit Holder (PH) for the duration of the work. The PI is responsible for verifying that the control measures are in place as specified on the Work Permit and providing a level of oversight to the activity as determined appropriate by the PI. The PI needs to be consulted if the work conditions change and the PI must verify any changes in the required control measures are in place.

The PIs are appointed by an SPI. The PI must be trained on the PTWS and successfully complete the competency training detailed in *Section 5.1* before issuing any permit at any location.

PI's are experienced and competent Z employees and in some cases, may be a third-party contractor.

The PI's responsibilities include the following tasks:

- Successfully complete the Z PTWS competency requirements for PIs (as detailed in *Section 5.1*)
- Verify the contractor company is an accredited contractor (using ISN as per [HS-CSP-PRO-001 – Z's approach to contractor and supplier management](#)) or a derogation is in place (refer to *Section 1.10*)
- Critically review the safety documentation prepared by the Permit Holder as part of the preparation of the permit
- Discuss the safety documentation with the Permit Holder
- Confirms the Permit Holder is aware of the Z PTWS requirements, and all personnel involved in the work have completed the site induction
- Ensure the permit holders are trained and competent in these responsibilities (refer to *Section 5.3*)
- Issue a permit that accurately details the scope of works and ensures that the combined documented controls are adequate so the work can be completed in a safe manner
- Confirm all relevant parties have provided their input and agree with the hazards and controls identified in the permit before it is issued
- Verify that all necessary supporting documentation and drawings are attached or readily available while the work is being performed
- Review the permit with the Permit Holder and verify that they know the exact location of the work, the permit conditions, emergency procedures in the event of an emergency during the work, hazards that have been identified, and the controls that must be taken during the work
- Specify (on the permit) any additional controls that need to be taken during the work



- Identify any conflicts between the proposed work and other activities in the area of the work that is being authorised by the permit, and if necessary, cross-reference the permits
- Sign and issue the permit
- Cancel or suspend permits when necessary
- Ensure any safety issues associated with a 'Stop work authority' has been resolved and the appropriate permit is in place
- Sign off on the permit once the work is complete
- Keep copies of the permit form and associated documents as detailed in Section 9.5
- Conduct PTWS training for PI candidates (or nominate a competent alternative Z person to conduct the training)

The Permit Issuer has the responsibility for setting the conditions for which the activity conducted under a Work Permit must be undertaken. The conditions must meet the minimum standards as set out in the PTWS and can include any other conditions considered reasonable in the circumstances.

4.2.6 Designate

A competent person who is acting as a representative of the Permit Issuer. The Designate carries out duties authorised by the PI and provides information to the PI.

The Designate is authorised to:

- Carry out duties as authorised by the PI, such as work site inspections

The Designate is not authorised to:

- Issue permits (verbal or written)
- Close permits
- Issue additional certificates
- Revalidate permits

4.2.7 Permit Holder (PH)

Specific training and competency requirements for PHs is included in *Section 5.3*.

The Permit Holder (PH) is responsible for taking all necessary steps to perform the work in a safe and environmentally sound manner in accordance with the permit. They can be a Z employee however they are typically an employee of the contractor who is responsible for performing the work and may be the work site supervisor.

The PH is not allowed to make any changes to the Work Permit or associated PTWS documents without the acknowledged permission of the PI.

The person or contractor undertaking the work, who may also be the PH, is responsible for the following tasks:

- Plan the requirements for carrying out potentially hazardous work and include them in their works programme
- Engage a competent PI with sufficient notice (refer *Section 9.2*), and provide the required documentation to the PI for review with sufficient time for the PI to review the documents thoroughly before the time the permit is required
- Advises the PI and site representative if the work activities will introduce any new risks to the site and where there is the potential to affect usual site operations
- Provide continuous supervision to ensure the Z PTWS requirements are met

The PH's responsibilities include the following tasks:

- Prepare safety documentation and any other documents required
- Identify the need for a permit and certificates as per the works programme and contact the local PI to arrange for this
- Discuss the job fully with the PI before signing to accept the permit
- Provide input into the controls necessary to manage risks as their area of expertise relates to the scope of work
- Review the risks and controls daily through a prestart or toolbox meeting and ensure all workers are trained and have signed on to the safety documentation for the works
- Conduct daily Toolbox Talks and any other engagement necessary to ensure the work details are explained to the work party, including any potential hazards and risks and their associated control measure(s)



- Make sure that the PTWS documents are complied with, including without limitation, ensuring that the control measures are maintained throughout the work and that the work party and the work stays within the limits and conditions specified on the permit (area, scope of work, time)
- Be personally present at the work site at all times during the permit-controlled work – if they must leave the work site while work is being completed, the permit may be handed over to another PH (refer Section 8.9) or cancelled and all work stops until a new permit is issued
- Ensure the Work Permit and certificates are available and accessible at the work site to all contractors and employees
- Stop the work and seek advice from the PI if conditions at the site change (refer Section 8.3.2)
- Take the necessary steps to ensure the work area is left in a safe and tidy condition before handing back the permit to the PI on completion or suspension of the work, as applicable
- Submit the signed, completed permit to the PI when work is complete

Note - In the case where a Work Clearance Form (WCF) is required (refer to Section 7), the contractor signing the WCF is to be considered as having the same responsibilities a PH.

4.2.8 PTWS Trainer

Other than a SPI, a relevant experienced Z person can be nominated by a SPI as a PTWS Trainer. This alternate is to be agreed to by the PTWS Custodian who will maintain a list of PTWS trainers.

The PTWS Trainer is responsible for conducting the PTW training and managing the training and testing competency requirements for Step 1 of the General Permit Issuer competency requirements (refer to Table 2 in Section 5.1).

4.2.9 Site Representative

The Site Representative (for manned operating sites only, such as Retail sites, Airport operations, Bulk Fuel Terminals, Te Kora Hou and Z Offices) is a Z person with the following site responsibilities:

- Confirm that the contractor or workers performing the work have:
 - completed and signed PTWS documentation
 - completed the appropriate contractor induction requirements where applicable
- Provide an induction for the site and significant activities that will be happening on site for the day
- Advise the PH and PI if there are any operational or site conditions that may have an impact on performing the work safely (for example, product delivery)
- Check work activity and if any work practices appear inconsistent with Z's Life Savers, intervene with the relevant party, and inform their supervisor
- Stop the work if there is a concern about the safety of the work being conducted
- Advise those performing the work and/or the contractor of any new hazards as they become aware of them

4.3. Operational roles with specific PTWS responsibilities

Under the PTWS, the control of certain works calls for specific operational roles with safety & wellbeing responsibilities. Where these roles are necessary, they are defined in the work permit conditions. Further details of the responsibilities and training and competency requirements for these roles are included in the relevant Z Safe Work Practices (refer Appendix 2 – Internal Reference)

This section lists the PTWS roles with specific PTWS responsibilities that are additional to those workers undertaking the work. Refer to the Z Safe Work Practices for requirements of the operational roles that will be directly involved in undertaking the work.

4.3.1 Authorised Gas Tester

The Authorised Gas Tester (AGT) is appointed by the Permit Holder for all permits where atmospheric testing is a requirement. The AGT is responsible for taking the necessary steps to confirm that the atmosphere in, on and about the work area means the work can be performed in a safe manner.

The AGT shall be adequately trained and experienced to perform the gas testing and to operate the gas testing device. The AGT must be formally trained in the use of the gas detector and have current certification to demonstrate this. The AGT certification must be recorded in the PTWS documents.

An AGT is required when the following work activity is being undertaken:



- Confined space entry (*HS-IOA-GUI_012*)
- Hot work in a hazardous zone (*HS-IOA-GUI-013*)
- Where a PI deems this role necessary

4.3.2 Fire Watch

For hot work within a confined space, at the discretion of the Permit Issuer, and where there is deemed to be no increase in risk, the roles of Fire Watch and Standby Person (refer *Section 4.3.3*) for the same job may be filled by the same person. A Fire Watch must be a separate person to that physically doing the hot work.

For hot work outside of a confined space at the discretion of the Permit Issuer, and where there is no increase in risk, the Fire Watch can be a designated member of the work crew not directly involved in the heat source, such as a Tradesman's assistant or similar. Where the work is within 8 meters of a potential open source of vapour or liquid such as a Pump raft or Loading rack then a dedicated Fire Watch shall be appointed.

The Fire Watch must be named in the PTWS documents and communicated during Toolbox talks.

A Fire Watch is required when the following work activity is being undertaken:

- Hot work in a hazardous zone (*HS-IOA-GUI_013*)
- Where a PI deems this role necessary

4.3.3 Standby Person

At the discretion of the Permit Issuer, and where there is deemed to be no increase in risk, the roles of Fire Watch (refer *Section 4.3.2*) and Standby Person for the same job may be filled by the same person.

A comprehensive listing of Standby Person's duties and training requirements is provided in the relevant Safe Work Practice documents for Working at Heights or Confined Space Entry.

Under no circumstances shall the Standby Person for confined space entry, enter the confined space or attempt rescue by entering the confined space unless backup support is present.

The Standby Person must be named in the PTWS documents and communicated during Toolbox talks.

A Standby Person is required when the following work activity is being undertaken:

- Confined space entry (*HS-IOA-GUI_012*)
- Working at Heights (*HS-IOA-GUI-010*)
- Energised electrical work (*HS-IOA-GUI-016*)
- Excavation (*HS-IOA-GUI-011*)
- Lifting (*HS-IOA-GUI-014*) – a Standby person is referred to as the Spotter (in this case the Spotter cannot also be the Fire Watch)
- Where a PI deems this role necessary



5. PTWS Roles - Competency requirements

Building competency for PTWS roles is consistent with Z's approach to building HSSE capability (HS-CPB-PRO-001). PTWS roles are considered as HSSE Specialist skills as defined in Z's HSSE capability framework. The 70:20:10 blended developmental approach is applied, using a mixture of learning through experience (70%), learning through exposure (20%), and formal learning (10%).

All PTWS roles follow the HSSE learning journey of 'I know about it', 'I can do it' and 'I can coach others'.

5.1. Permit Issuers (PI) requirements

Becoming a Permit Issuer (PI) is a five-step process. A PI candidate must pass each step before they will be deemed fully competent to be certified as a PI (and at 'I can do it' level).

The final assessment and approval of a new PIs competency is done by a SPI.

After a PI candidate is identified, they must successfully complete all five steps detailed in Table 2 (below) to prove their competency as a PI and ultimately be approved as a certified Z Permit Issuer.

All PI candidates are required to be setup in Z Energy's "Z School/Z Academy" Learning Management system. This system is used to track and report upon the training progress of individuals, store and hold training document evidence (such as copies of external training certificates), provide reminders when refresher training is coming due and used to issue candidates with formal certification, upon successful completion of all five stages.

Table 2 – General Permit Issuer competency requirements

	Step	Competency	Description	Competency requirements
I know about it	1	External training	NZQA Unit Standards (US) and/or Z approved alternative training courses must be completed by a PI candidate. Training is specific for each work permit activity type.	All external training course requirements are listed in section 5.1.1 - Table 3 Copies of training certificates are to be uploaded into Z School/Z Academy Learning Management system as documented evidence of completion.
	2	Z's PTWS training program	Z's PTWS training program must be successfully completed by all new PI candidates. This program consists of: a) Z's Permit to Work System e-learning module b) Z's PTW Safe Work Practices e-learning modules c) Z's Permit Issuer Workshop (3 day "face to face" workshop)	Completion of all the relevant e-learning modules and attendance at the face-to-face PTW Workshop sessions are mandatory in order to pass to the next step. Note: Z's e-learning modules are assigned and accessed via the Z School/Z Academy Learning Management system.



	Step	Competency	Description	Competency requirements
	3	PTWS Tests	<p>PI candidates must pass formal tests to demonstrate their knowledge and understanding of Z's PTWS.</p> <p>The tests are issued to candidates during/after attendance of the Z Permit Issuer Workshops.</p>	<p>Candidates must score a minimum of 90% on the tests. If this score is not achieved, the PI candidate may retake the test.</p> <p>Candidates may take the test up to three times before Z's PTWS training program must be completed again.</p>
I can do it	4	Supervised work permit issuing ("buddy training")	<p>After the completion of Steps 1 - 3, a PI candidate may begin to issue work permits under the direct supervision of an experienced certified PI.</p> <p>Throughout the candidates training period they should get as much exposure to permitting activities as possible, working with a certified PI (buddy) to help familiarise themselves with the process and ask questions etc.</p>	<p>For each type of permit the PI is seeking approval to issue they must complete at least two successful permits under supervision for the particular work activity and be deemed competent by the supervising PI in issuing permits for that activity before being put forward to the next step.</p> <p>Supervising PI's must countersign the PTWS documents.</p> <p>Supervising PI¹ then recommends the PI candidate for the next competency step</p>
	5	PI competency assessment (and final approval / certification)	<p>A PI candidate's competency is assessed by a SPI.</p> <p>Note - this assessment and approval is documented using form HS-IOA-FOR-026</p>	<p>PI candidate must successfully pass the competency assessment as determined by a SPI.</p> <p>The SPI will approve PI status for each work permit type where competency has been proven (refer Section 5.1.2 for requirements to demonstrate competency)</p> <p>The completed assessment form is to be uploaded into the School/Z Academy Learning Management system.</p> <p>Z School/Z Academy Admin will review form and then confirm the status to 100% complete; after which a PI Certificate/s will be automatically system generated and available for the individual to download/print.</p>

¹ The supervising PI must be a competent and experienced PI who is suitable to supervise PI on probation (as identified by a SPI).

PI certification is valid for 3 years before re-assessment is required. Re-assessment for a qualified PI requires only Step 5 of the PI competency requirements outlined in Table 2.



5.1.1 External training requirements for Permit Issuers

The external courses provided by external parties (i.e., NZQA, gas tester suppliers) are designed to ensure that PIs understand their responsibilities and the common hazards and risks associated with specific permits. These Unit Standards (US), or other alternative Z approved courses, must be completed before the PI can undertake supervised permit issuing in the specific activity requiring a work permit.

All PIs must complete the NZQA USs listed for "Work Permit". Approval to issue specific Work Permits (as defined below) is granted based on the successful completion of the specified external training indicated in Table 3 below.

NOTE - In the case of experienced people, rather than completing external courses, competency can be demonstrated by a PI candidate, whereby the candidate has had relevant and adequate experience in the work type for the permits they are seeking approval to issue. It is the SPIs responsibility to assess and document this competency and approve the PIs relevant experience as an alternative to the completion of external training for Step 1 in the Permit Issuer competency requirements (refer to Table 2).

Copies of external training course certificates/documents (evidence) must be uploaded and electronically stored/tracked within Z's Learning Management system – Z School/Z Academy

Table 3 – External training requirements for PIs

Work Permit type	Qualification	Description	Frequency
Work Permit (Mandatory for all PIs regardless of experience level)	NZQA US 17590 AND	Issue worksite specific work permits	One-off training (Do this training once)
	NZQA US 17602 OR	Hazard Identification (Describe hazard identification and control and apply risk assessment procedures under supervision in the workplace)	
	NZQA US 30265	Apply health and safety risk assessment to a job role in accordance with regulatory requirements and industry good practice	
Confined Space	NZQA US 3058 OR	Perform gas tests for an energy and chemical plant	Ongoing <3 yearly refresher training (Keep this training current)
	NZQA US 25510 AND	Operate an atmospheric testing device to determine a suitable atmosphere exists to work safely	
	NZQA US 17599 AND	Plan a confined space entry	
	NZQA US 18426	Demonstrate knowledge of hazards associated with confined spaces	
Hot Work	NZQA US 3058 OR	Perform gas tests for an energy and chemical plant	Ongoing <3 yearly refresher training (Keep this training current)
	NZQA US 25510	Operate an atmospheric testing device to determine a suitable atmosphere exists to work safely	
	OR	Complete training provided by a relevant gas detector supplier as an alternative to completing NZQA USs listed for Hot Work	



Work at Height	NZQA US 17600	Explain safe work practices for working at heights	Ongoing <3 yearly refresher training (Keep this training current)
	AND		
	NZQA US 25045	Employ height safety equipment in the workplace	
	OR		
	NZQA US 15757	Use, install and disestablish temporary proprietary height safety systems when working at height	
Isolation (Electrical or Mechanical)	NZQA US 25043	Lock-out and reinstate machinery in the workplace	One-off training (Do this training once)
Lifting operations	NZQA US 30072	Demonstrate and apply knowledge of slinging regular loads safely	One-off training (Do this training once)
	<i>(Knowledge /theory part only required for PI's)</i>		
	OR		
	Complete an alternative course provided by an appropriate training body		
	OR		
	Complete Z's E-learning module "Lifting & Rigging (Knowledge level) Training		

Any training conducted by a third party other than NZQA, or if not listed in the table above, must be approved as being suitable by the PTWS Custodian.

5.1.2 Demonstrated Permit Issuer competency

To ensure PIs are competent in the risks associated with a particular work permit activity, the SPI must confirm that the PI has demonstrated competency for issuing permits for certain work activities by having:

- a practical understanding of the relevant hazards and risks
- the ability to effectively communicate the permit requirements to the PH
- the knowledge of the correct PTWS process and documentation required
- regular involvement in permit activities under the direct supervision of an experienced PI (i.e., has had plenty of buddy training)

The *PTWS PI Competency Assessment Form - (HS-IOA-FOR-026)* should be used by the SPI to document this formal competency assessment and subsequent approval/certification.

SPI's can refer to Z's 'Senior Permit Issuer Assessment Guide' (HS-IOA-GUI-0016) for guidance on how to complete this assessment.

Note - a copy of the completed PI Competency Assessment form (HS-IOA-FOR-026) must be uploaded and retained in Z's Learning Management System (Z School/Z Academy) as a formal record of this assessment.

5.1.3 Engagement with Permit Issuers

PIs are imperative to the successful control of work activities on Z sites. Therefore, it is important to regularly communicate with PIs to ensure:

- PIs are consulted on any proposed changes to PTWS requirements and aware when requirements are changed
- PIs are informed about changes in relevant legislation that may affect the application of the PTWS
- Lessons learned are shared and PIs have an opportunity to consider the application of these lessons on their areas of PTWS responsibility



- PIs are engaged with best practice application of PTWS
- PIs have an opportunity to provide feedback on the effectiveness of the PTWS
- Other relevant information is made available to PIs

The responsibility for ensuring the above engagement practices are being applied, rests jointly with the SPI's, and PTWS Owner.

5.2. Senior Permit Issuers (SPI) requirements

A SPI is considered to be at the 'I can coach others' level of the HSSE learning journey (as defined in *HS-CPB-PRO-001*).

Before becoming a SPI, the candidate must:

- Be nominated/endorsed by an existing SPI, as being suitable for this role.
- Be an existing Z certified PI and/or have had extensive experience in permit issuing in operational areas similar to Z's operations.
- Complete all the required steps in Table 4 'Senior Permit Issuer competency requirements' (as below).

SPI's can be either Z employees or selected third party contractors that have been approved by Z.

Where a third-party contractor is appointed as a Z SPI, these individuals must be deemed to be fully independent of the company's operations, to allow them to signoff and approve PI's (e.g., they are either an independent contractor from a different company, or alternatively someone like the HSSE manager of a company who is not directly involved in their operations, so as to avoid any conflict of interest).

If any of the SPI requirements are not met for any reason, a derogation from the PTWS must be approved before the candidate can be considered for becoming a SPI.

Table 4 – Senior Permit Issuer competency requirements (or “learning path”)

	Step	Competency	Description	Competency requirements
I know about it	1	External training	NZQA Unit Standards (US) and/or Z approved alternative training courses must be completed by a PI/SPI candidate. Training is specific for each work permit activity type.	The list of required external training courses can be found in Table 3 of Section 5.1.1 Note: evidence/copies of all training certificates are to be uploaded into Z School/Z Academy Learning Management system.



Step	Competency	Description	Competency requirements
2	Z's PTWS training program	Z's PTWS training program must be successfully completed by all new PI candidates. This program consists of: <ul style="list-style-type: none"> a) Z's Permit to Work System e-learning module b) Z's PTW Safe Work Practices e-learning modules c) Z's Permit Issuer Workshop (3 day "face to face" workshop) 	Completion of all the relevant e-learning modules and attendance at the face-to-face PTW Workshop sessions are mandatory in order to pass to the next step. Note: Z's e-learning modules are assigned and accessed via the Z School/Z Academy Learning Management system.
	Current Z PI Certification Or Equivalent experience	SPI candidates should either be a current experienced Z Certified PI or alternatively have had extensive experience in permit issuing in operational areas similar to Z's operations.	For Z PI certification requirements - refer Section 5.1 table 2 SPI to review the SPI candidates previous permit issuing history, experience & knowledge. Attach evidence in Z school.
I can coach others	4	Endorsement by SPI A current competent and experienced SPI is to endorse and nominate the candidate for approval, as a SPI. Note: SPI to send this endorsement as a formal request (e.g. via email) along with any evidence to support their endorsement.	To ensure SPIs are competent in the operational risks associated with all work permit activity, the nominating SPI must confirm that the SPI candidate has demonstrated competency for overseeing PTWS requirements in all activities requiring work permits by having: <ul style="list-style-type: none"> • a practical understanding of the relevant hazards and risks for all activities • the ability to mentor PIs and effectively communicate the PTWS requirements
	5	GM Approval Before a SPI is appointed, they must be approved by both: <ul style="list-style-type: none"> • GM of relevant Business Unit And <ul style="list-style-type: none"> • Head of Safety, Wellbeing and Risk (The PTWS Owner) 	The BU General Manager and Head of Safety, Wellbeing and Risk must assure themselves the nominated SPI has the required competency before approving them as a new SPI.



Following the successful completion of the five steps as listed in Table 4 above:

- SPI to provide copy of GM approval/evidence to the Z School/Z Academy Admin focal point.
- Z School/Z Academy Admin focal point will review and upload the documents and push the status to 100% complete.

After this, a SPI Certificate/s will be automatically system generated and available for the individual to download/print from Z School/Z Academy.

SPI certification is valid for so long as the SPI retains their PI competency, they remain actively involved in the SPI role, and there is no reason to revoke certification.

5.3. Permit Holders (PH) requirements

It is the responsibility of the PH (including the company they are employed by if this person is a contractor) to ensure the PH is familiar with the Z PTWS.

All Permit Holders (PH) must:

- be inducted into the site on which they are working
- be aware of their responsibilities under the Work Permit (note: Z Permit Holder Role & Responsibilities GUIDE form HS-IOA-GUI-018 can be used for this purpose)
- have familiarised themselves with the relevant Z PTWS requirements (note: the Z PI will help guide the PH through these requirements)
- provide copies of relevant training records/certificates upon request by Z.

5.4. Worker requirements

All people completing operational activities for Z must:

- be competent or be supervised so that they are able to perform the work safely.
- be inducted into the site on which they are working
- provide copies of relevant training records/certificates upon request by Z.



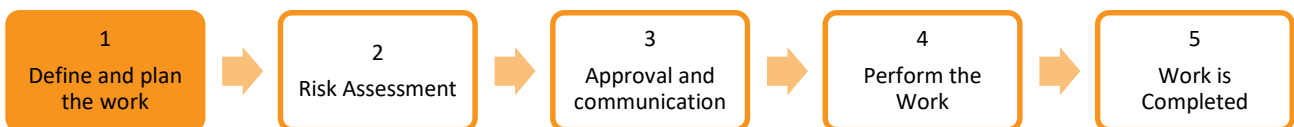
6. PTWS process

Five steps make up the PTWS process. Each of the steps are important to the management of safety & wellbeing operational risks associated with work conduct for Z:



Each of the five steps is described in the following sections, and the PTWS workflow is detailed in the QRG (HS-IOA-GUI-008).

6.1. Define and plan the work



Before work starts the work, scope must be determined.

For Z's PTWS to apply, the works must be undertaken by a Z person, or a Z engaged contractor (refer to Section 1.90 for contractor requirements), conducted on a Z site or on an asset owned by Z (excludes work on Z asset in a contractor site or workshop).

6.1.1 Z sites

A Z site is a site considered under Z's operational control. These sites are considered as either a Supply or Network site.

6.1.1.1 Supply sites

These are sites under the operational responsibility of Z's Supply Business Unit. Supply sites include Z's Fuel Storage Terminals, Z' operated Airport operations and Te Kora Hou (Biodiesel Plant).

6.1.1.2 Network sites

These are sites under Z's operational control or where Z owns assets that are downstream from our Supply sites, including offices, Retail Service Stations, TruckStops, General Aviation sites and home-based storage locations.

6.1.2 Non-routine work

Non-routine work is work that is NOT performed regularly in a controlled environment with an approved Standard Operating Procedure (SOP) or equivalent document. For example, non-routine work is a work activity that is, but not limited to, any of the below:

- performed infrequently
- outside of normal duties
- does not have an approved standard operating procedure (SOP)
- performed in a different way from the standard operating procedure (SOP)
- has never been performed before

6.1.2.1 Standard operating procedure approval process

On occasions an approved standard operating procedure (SOP) may be more appropriate for repetitive, routine activities.

A SOP must be approved before work can be conducted against the SOP rather than a permit.

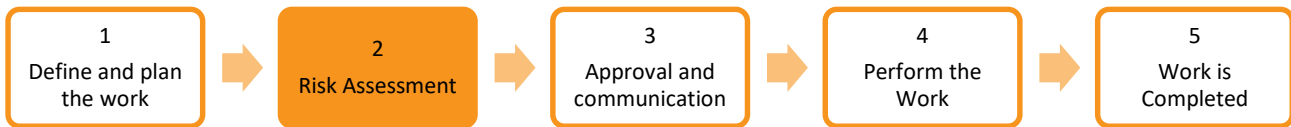
When the potential for the work to be conducted under an SOP is identified, the following process is to be followed.

1. The relevant Z representative for the work, in consultation with the contractor, conducts a risk assessment and develops the SOP



2. The competency of personnel and the equipment required to undertake the work is detailed in the document(s)
3. The review and approval of the SOP is carried out according to the business unit document management and control procedure
4. Operators are trained on the SOP before undertaking the activity as routine work

6.2. Risk Assessment



The hazards and risks associated with the activity are considered to determine:

- the appropriate controls and applicable safe work practice
- documentation required, including work permits, certificates, and documented risk assessments
- approval levels for the task

Risks are assessed and considered using Z's Risk Analysis Matrix (Z RAM).

It is during this step that the need for external notification is identified.

6.2.1 Previously assessed tasks

As certain types of works are common across Z sites, the risks associated with these works have already been considered and described in the PTWS Hazardous Activity Tables (included as Appendix 3 and in *HS-IOA-GUI-009*).

Pre-assessed risk levels of the activities listed in the PTWS Hazardous Activity Table were determined by considering Z's Safety & Wellbeing Organisational Risk Profile, WorkSafe NZ work notification requirements and industry guidance on managing particular work tasks.

All other works that are not included in the PTWS Activity Table, or where works are new to a site, must be risk assessed using the HITRA process (refer to *Section 6.2.2 – HITRA*).

The required PTWS documentation is determined by the level of risk of the activity to be undertaken (refer to *Section 7*).

If a PI, PH or site representative consider the risk level assigned to an activity is not sufficient to manage the activity safely, it should be managed at a higher level (refer *Section 6.2.2.2*). Regardless of the inherent risk of an activity, controls are to be put in place to reduce the risk exposure to workers to an acceptable level.

Where a Z Safe Work Practice is available for high-risk activities, the document must be reviewed prior to developing PTWS documentation.

6.2.2 New or non-routine tasks

For any new or non-routine activity, i.e., task not previously performed or assessed, a **Hazard Identification and Task Risk Assessment (HITRA)** must be completed.

HITRA is a systematic and methodical approach to a task-based risk assessment. It provides a structured and documented approach to assessing whether a job is safe to undertake and the controls necessary to manage the risks.

A HITRA is a formal process comprising three elements:

- Hazard Identification – Identify the task, jobsite, and process hazards that could cause harm.
- Risk Assessment – Assess the risk that may arise from the hazards.
- Risk Control – Deciding on suitable measures to eliminate or control risk

Completing a HITRA involves breaking down work activities into individual tasks, identifying associated hazards against these tasks, risk-assessing them, and then determining appropriate methods of eliminating, isolating, or minimising the identified hazards for the tasks to be undertaken. Refer to *HS-MOR-PRO-003 HITRA procedure*.



Where possible, a HITRA is to be completed on the site where the activity will be undertaken. If there is a need for additional site-specific knowledge to complete a thorough HITRA, a site visit by all HITRA team members is recommended. To document the process, any of the following forms can be used:

- HITRA form (HS-MOR-FOR-021)
- Job Safety Analysis (JSA) form (HS-MOR-FOR-003)
- Safe Work Method Statement (SWMS) (HS-MOR-FOR-013)

A Work Permit for high-risk activities cannot be authorised until a HITRA has been completed and approved.

6.2.2.1 HITRA Approval Process

The intent of approving the HITRA is to verify that:

- A team with an appropriate level of expertise has been assembled to conduct the HITRA
- The risks have been sufficiently assessed
- The residual risk has been reduced to an acceptable level, controls are so far as reasonably practicable
- Whether further risk reduction should be considered

Table 5 – HITRA approval requirements

RESIDUAL RISK Rating of an activity	HITRA approval requirements
Low risk activities	PI to approve
Medium risk activities	PI to approve
High risk activities	Escalate to SPI to validate. If risk level cannot be reduced by the inclusion of additional controls, approval to proceed with activity must be approved by the Business Unit General Manager

6.2.2.2 Guidance on risk rating escalation

At the discretion of the PI, the risk rating of an activity may be escalated. Managing an activity at a higher level could include the issuing of additional PTWS documents (i.e., PTWS Certificates).

The PI should consider the following issues as possible reasons to escalate the risk-rating of an activity:

- There have been historic near misses or incidents on previous similar tasks
- The task is complex through having several interfaces to deal with
- The location of the task or simultaneous operations (SIMOPS) increases risk
- Any concerns expressed by the PH, Site Representative, work team or specialised individuals

6.2.3 Activities excluded from the PTWS requirements

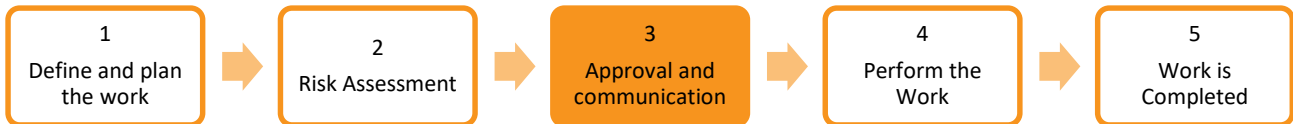
Certain low risk activities being conducted under the requirements of a supplier's SOP, can be considered as excluded from the PTWS requirements. Activities that can be considered as excluded from the PTWS requirements are included in Appendix 6.

At any time, a risk assessment can be conducted on a certain excluded activity, and if considered appropriate, managed under the PTWS requirements.

For specific situations where the PTWS requirements may not apply, refer to Section 3.2.



6.3. Approval and communication



Once the risk controls associated with the activity have been identify they must be agreed, recorded, communicated to the work team and implemented.

6.3.1 Work site inspection

The PI should demonstrate to the PH(s), the method(s) of isolation and explain any additional precautions to be taken by the PH(s).

The Permit Holder(s) must ensure that the requirements and controls of the permit are understood and followed by all personnel involved with the work. The HITRA accompanying the Work Permit, and any other supporting documentation associated with the permit, must be acknowledged by all parties present.

6.3.2 Engage workers

Ensuring the requirements included in the PTWS documents are communicated to those people who are doing the work. This includes everyone involved in the job irrespective of who they work for. The understanding of the risks and controls by people undertaking the work is essential to the work being completed safely.

This is done by involving everyone in a daily Toolbox to discuss the risks identified on site and the required control measures. Any PPE requirements noted on the permit should be discussed.

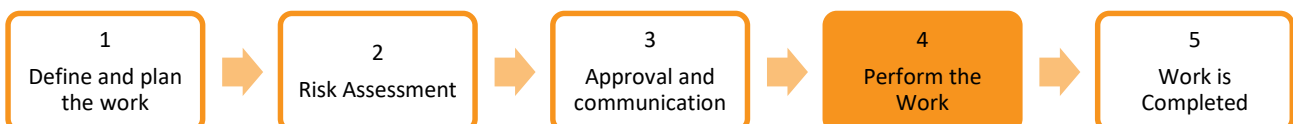
A Toolbox is conducted by the PH before work commences on an activity at the start of each day, or shift. If the conditions of the Work Permit change, or there are environmental changes that could affect safe operations, an additional Toolbox can be completed during the course of the day's work.

At the Toolbox workers are made aware of the risks involved in the activities, the controls that have been implemented and their role in ensuring the controls are in place and functioning. They should be regularly reminded of their Stop Work Authority (refer to *Section 1.6*).

Workers are encouraged to raise any issues associated with conducting the work safely and to contribute towards the way in which the risks are managed, by using formal opportunities, such as participating in the HITRA process, during Toolbox talks, or during any informal discussion with PH, PI or a contractor or site representative,

Toolbox talks are documented and everyone involved in the activity must sign on to the Toolbox each day.

6.4. Perform work



It is the responsibility of:

- the PH to ensure the controls have been implemented, remain in place and effective for the duration of the works
- the PI and PH satisfy themselves the controls are in place and working, by conducting a work site inspection prior to commencing the work activity, and before they both approve and sign off on the PTWS documents
- PI to periodically verify the controls are in place and effective



6.4.1 Regular site inspections

The PI or his designate must complete regular site inspections during the course of the day, or shift, and inspect the work site before work recommences after a period where work has stopped.

- If work is not carried out in accordance with the HITRA associated with the work, anyone has the ability to stop the work (refer to *Section 1.6*). The contractor or site representative must ensure that the work is stopped immediately or as soon as it is safe to do so

The PH

- authorises the re-start of any works only when the HITRA requirements can, and are being met
- Or
- Requests a new work permit with an updated HITRA

6.4.2 Visitors to Work Sites

6.4.2.1 Visitors required for work activities

Where visitors to a work site are required to attend a work area in which Work Permits are in place, and where their presence is solely for visual inspection of the work activity, they must sign into the site, be inducted to the site and escorted by site representative. The visitor is to read, understand and sign on to the daily Toolbox for the activity they will be inspecting.

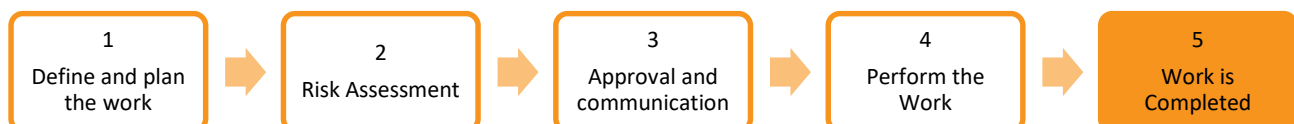
Visitors to the work site are at the discretion of the PI, PH or person escorting the visitor.

6.4.2.2 Visitor for non-work activity reasons

Visitors to a work site, in which Work Permits are in force, for non-work activity reasons, (i.e. observations, education) must sign in to the site, be inducted to the site and escorted by a site representative at all times.

Visitors to the work site for non-work activity reasons are at the discretion of the PI, PH or the person escorting the visitor.

6.5. Work is completed



6.5.1 Clean Up Work Site

Work is not complete until PI is satisfied that the site is safe and left as agreed.

6.5.2 Inspect Work Site

Once works being conducted under a Work Permit have been completed and before a work permit is closed out, the PI or his designate (for Network) will conduct a final inspection of the job site, accompanied by the PH and relevant contractor, ensures all equipment is left in a safe and secure state, including any site equipment and contractor equipment (e.g. welders, drills, scaffolds etc.). Once the PI is satisfied, the permit can be closed (refer *Section 8.2.3*).

The same process is followed for end of day hand back for work permits valid for more than 1 day (refer *Section 8.9.1*).

Note: In the case of engineering project work, or major maintenance activities the PI may need to consult with the Project Manager or Site Safety Supervisor to confirm the job has been completed to a satisfactory standard.

6.5.3 Confirm work is completed

Once the PI is satisfied with the condition of the work site and confirms the work is complete, the permit is closed (refer *Section 8.2.3*).



7. PTWS documents

The PTWS documents form the contract between the PI and PH for the activity that is to be undertaken. It provides a documented record of consultation, communication and coordination between all parties and a written agreement to conduct the activities under the specified conditions.

The need for certain PTWS documents is dependent on the risk levels for activity.

In order to address the different nature of the work environments, the PTWS documents have been designed to address the specific needs of the Network Sites and Supply Sites. Table 6 sets out the PTWS documents for both types of sites.

All PTWS documents must be readily accessible to all workers at the work site.

Table 6 – PTWS document types for Z Sites

PTWS Document	NETWORK SITES				SUPPLY SITES		
	High	Med	Low		High	Med	Low
Work Clearance Form	✓	✓	✓		✗	✗	✗
Work Activity Risk Assessment (HITRA/SWMS/JSA)	✓ Must be HITRA	✓	✗		✓ Must be HITRA	✓	✗
Work Permit	✓	✗	✗		✓	✓	✓
Certificates	✓	✗	✗		✓	✗	✗
Additional supporting documentation	Dependant on activity and PI requirements						

7.1. Work Clearance Form (WCF)

Work Clearance Forms (WCF) are only used for Network Sites, where PIs are not routinely present on site. A WCF is valid for only one day.

A Work Clearance form (WCF) is completed by the person or contractor performing the work in conjunction with the Site Representative for manned sites. Work Clearance is a process of hazard identification and is used to verify that all activities on site are undertaken with the knowledge of the Site Representative.

The Site Representative advises all persons performing the work if there are any operational or site conditions that may have an impact on performing the work safely (for example, product delivery, other work in the area).

The Work Clearance process is also designed to stop the work or trigger the need for a Work Permit under certain conditions.

The WCF is also used by the Permit Holder (PH) to renew a Network permit on a daily basis as long as the permit validation period has not expired. If the permit validation period has expired, the PH must stop the work and consult the Permit Issuer (PI).

A WCF is required daily for all work. It is to be completed before starting the work each day and closed by sign-out with the Site Representative at the end of that day's activities.

Where more than one worker is involved in the activity, a toolbox talk is to be conducted with all workers before starting work to discuss the hazards identified on site and the required control measures (refer Section 6.3.1).



A WCF must also be completed at unmanned and closed locations, but a signature by the Site Representative is not required. The unmanned or closed status is noted on the Work Clearance Form. The person performing the work is required to sign off the WCF at the completion of the works.

A minimum of two copies of the WCF are required:

- site copy to remain on site
- contractor copy to be filed by the contractor

7.2. Work Permit

A Work Permit is a document used to describe the work to be performed, tools to be used and hazards associated with the planned work. A Work Permit is issued for a particular task or activity, not for multiple activities over a period of time. It identifies the requirements to be in place to eliminate, isolate, or minimise the hazards and risks associated with the task or activity. Together with other PTWS documents, the Work Permit shall cover all risks and identify the necessary control measures to ensure the risks are as low as reasonably practicable.

The Work Permit must be accepted by the PH and authorised by the PI before work starts. Once the work is complete, the PH signs and submits the completed permit to the PI. The PI must sign the permit to verify the job is complete and that the permit is closed (refer Section 6.5).

Refer to Section 8 for more detail on Work Permit requirements.

There are two types of Work Permits which are used depending on the type of site where the work is to be conducted.

7.2.1 Network Work Permit

A Network Work Permit is issued for all high-risk activities conducted on a Network site. A Network Work Permit must always be accompanied by a WCF (refer Section 7.1).

A Network Work Permit is also required for medium risk works where the main contractor is not accredited (refer to Section 1.19), or where required in the contractors HSSE Management Plan for the project or contract.

Other supporting documents accompany the Network Work Permit as required

7.2.2 Work Permit for Supply Sites

For Supply Sites, where a PI is available at all times, a WCF is not used. Rather a Work Permit is required for all work activities. The Work Permit satisfies the requirements of both the WCF and Work Permit as used for the Network Sites.

A Work Permit is required for all non-routine work at a Supply Site. It is to be completed before the initial start of the work and revalidated each day the Work Permit is valid. For permits valid for more than one day (refer to Section 8.3) it must be signed as 'handed back' (refer to Section 8.9) to the site at the completion of the day's activities and revalidated the next day. If the permit validation period has expired (refer Section 8.3), the Permit Holder must stop the work and consult the Permit Issuer.

7.3. Work Activity Risk Assessment

A HITRA is required for high-risk activities. The outcomes of the HITRA process must be recorded on the HITRA form (HS-MOR-FOR-021) for all high-risk work done under a permit prior to performing the work. The form records the hazards associated with the activity and details specific safety requirements for the job.

Details on how to complete a HITRA is included in Section 6.2.2.

Where site representatives and PIs are involved in creation of the work activity risk assessment, the HITRA form (HS-IOA-FOR-021) is to be used. However, Z recognises there are other comparable documentation used and provided by a contractor (such as Safe Work Method Statement (SWMS) or Job Safety Analysis (JSA)), that follow a similar process to identify hazard, risks, and record controls, and with an appropriate level of sign off.

Documents provided by the contractor can inform a HITRA but does not replace the need for a HITRA for high-risk activities.

In the case of medium-risk activities, and at the discretion of the PI or HSSE Business Partner, these documents may be considered meeting the documentation requirements of Z's PTWS.



A HITRA, or alternative work activity risk assessment, such as SWMS or JSA must be available for medium-risk activities.

If the activity is rated as a low risk activity, a HITRA or any other alternative safety document is not required unless specifically required by the site representative, or where a HITRA has already been completed as part of the risk assessment.

7.4. PTWS Certificates

Certificates are separate forms that provides a greater level of detail on the controls to be put in place to manage certain high-risk activities safely.

Certificates are part of the permit for certain high-risk activities and are to be considered as mandatory requirements under the Work Permit for these activities. They form part of the contract between PI and PH as an agreement for how the work is to be conducted.

The Certificates are completed and agreed to by the PI and PH before the Work Permit is signed off.

There may be multiple certificates associated with a certain task. Table 7 list the different Certificates that may be required. For advice on which activities require particular certificates, refer to the PTWS Activity Table or *Appendix 3*.

Where a Certificate is not required, the HITRA will determine the controls required on a case-by-case basis.

Table 7 – Types of Certificates

Certificate Title	
1	Hot Work Certificate
2	Confined Space Entry Certificate
3	Work at Height Certificate
4	Excavation Certificate
5	LOTO Certificate
6	Tank Removal / Installation Certificate
7	Demolition Certificate
8	Lifting Certificate
9	Electrical Certificate

7.5. Additional Supporting Documentation

Additional supporting documentation may be requested at the discretion of the PI or HSSE Business Partner. It must be provided by the PH and satisfy the requirements of the PI or HSSE Business Partner before approval to commence work is given. This may include:

- Revalidation form (*HS-IOA-FOR-004*)
- Close Approach Clearance form (*HS-IOA-FOR-003*)
- WorkSafe Particular Hazardous Work Notification Form



8. Work Permit requirements

8.1. Issuing the Work Permit

The Work Permit should be issued to the PH of the crew performing the work. The PI shall review the work with the PH to ensure mutual understanding of the scope of the work and the method by which it is to be accomplished.

The review shall include the Work Permit supporting documentation, including HITRA and Certificates where required (refer *Section 7.3 and 7.4*).

It is important to ensure that the descriptions/special instructions provided are legible and in sufficient detail to convey a clear picture of the work to be performed, methodologies (e.g., the tools and equipment to be used), and any specific conditions applied to the work being done.

8.2. Work Permit Approval and Close Out

Approval to open and close permits are to be recorded within the Approvals Section on the Work Permit form. All permits shall be completed and authorised in pen, or by electronic signature.

8.2.1 Work Permit Approval

After a review of the Work Permit between the PI and PH, the Work Permit and associated conditions must be accepted by the PH and authorised by the PI before work starts.

The PI shall:

- Ensure all relevant sections of the Work Permit and associated Certificates are completed
- Ensure the conditions and any assumptions detailed in the HITRA are valid
- Ensure the HITRA has been formally approved
- Attach all other supporting documentation to the Work Permit. Where this is impractical, the supporting documentation must be specifically cross-referenced on the Work Permit
- Obtain any "Additional Signatures" (Site Representative, Fire Watch, Standby Person)
- Sign the Work Permit to authorise the contractor to conduct the work as per the conditions specified on the Work Permit and under supervision from the PH

The PH must:

- Sign the Work Permit to acknowledge that they have read and understood all conditions specified on the permit, and in any supporting documentation, such as PTWS Certificates.

8.2.2 Pre-Approval of Work Permit

A Work Permit and associated certificates may be pre-prepared but cannot be pre-approved. Approval for the Work Permit and associated Certificates must be granted only after the PI has visited the work site immediately prior to the works commencing.

8.2.3 Work Permit Close Out

Once the work is complete, the PH signs and submits the completed Work Permit to the PI. The PI verifies the work is completed (refer *Section 6.5.2*).

Once the PI is satisfied with the condition of the work site and confirms the work is complete, the permit is closed. This is acknowledged by the PI and PH by the signing of the close out section of the permit and associated certificates.

It is the responsibility of:

- the PH to ensure a signed and closed out work permit is returned to the PI
- the PI to ensure a record of the closed work permit is available

8.3. Work Permit validation

A Work Permit is valid for a specific task or activity, on a specific site, within a specific period of time. The normal working hours for the project or contract are to be used as the basis for determining the specific period of time.

Permits are to be applied for in advance of the work but should only be approved prior to actual work.



8.3.1 Work Permit validation period

Work Permits may be issued for a maximum of six consecutive days. The permit can remain in effect provided the Work Permit conditions have not changed (refer to Section 8.3.2), such that existing risks remain stable, and no new risks are introduced outside the agreed permit work scope. The Work Permit validation period, recorded on the Work Permit, must not have expired.

A Work Permit issued for work that extends beyond one day must be revalidated at the start of each day and a Toolbox conducted to ensure all workers present each day are aware of the Work Permit requirements (refer Section 6.3.1).

If the PH or PI changes during the Work Permit validation period for any reason, a Work Permit handover must occur (refer Section 8.8), or a new Work Permit issued. A Work Permit handover must be recorded on the Work Permit as acknowledgement the relieving PI or PH has understood the conditions of the Work Permit and their responsibilities.

The PH and PI renew a Work Permit by signing the revalidation section of the Work Permit (and/or Revalidation form (HS-IOA-FOR-004) where space in the Work Permit is not sufficient). In doing so, they are confirming all conditions of the Work Permit, and associated Certificates are met.

If the Work Permit validation period has expired, the PH must stop the work and consult the PI. The PI must issue a new Work Permit before the works under permit can restart.

8.3.2 Changes in conditions

The PH must suspend the work and discuss the appropriate course of action with the PI if there is a change to permit conditions such that existing risks change, or a new risk is introduced outside the agreed permit work scope. Changes in condition include any of the following circumstances if the conditions occur during the course of an activity under permit control:

- the specified equipment or tools to be used are not available
- the type of work changes
- the process conditions change (for example, the unexpected release of product or gas nearby)
- an emergency in the area
- change in weather conditions create additional or changed risks
- increase in the Operational risk profile of the works
- conflicting work is being undertaken by another Permit Holder or contractor

8.3.3 Extending the Work Permit validation period

A Work Permit can be extended for a period no more than 48 hours past the planned expiry date (so long as it will not exceed the six days maximum work permit validation period) and time if the PI has come to the site to issue the Work Permit and knows about the site and the contractor (PH) performing the work.

The PI and PH must discuss and review the conditions of the Work Permit and ensure the conditions for the Work Permit have not changed. If the Work Permit conditions have changed, then the permit is invalid and a new Work Permit must be issued before the works restart.

The PH must request an extension in writing (email is acceptable) to the Permit Issuer, outlining the reasons for the request. The PI shall review and can verbally accept the extension. However, this must be confirmed in writing (email is acceptable) and attached to the Work Permit documentation.

8.4. Work Permit invalidation (emergencies)

All Work Permits are invalidated in the event of an emergency. All work must cease, and the worksite left in a safe condition if it is safe to do so.



8.5. Revalidating a Work Permit after an emergency

A Work Permit can only be revalidated once it has been invalidated or closed as a result of an emergency. The Work Permit can only be revalidated on the same day of the Work Permit was closed or invalidated. If the Work Permit invalidation or closure was for reasons other than an emergency, a new Work Permit must be issued.

The revalidation process includes the PI, PH and work team completing a Toolbox Meeting, and the completion of any worksite inspection requirements i.e. gas testing the worksite. Once these requirements are met, the authorisation is recorded on the "Work Permit Revalidation" section.

8.6. Remote permitting

Face-to-face communication is important to the engagement between PI and PH and critical to ensuring a common understanding on the risk and controls associated with the activity. Given the importance of these face-to-face discussion, remote permitting is not allowed for high-risk activity.

Where a derogation is requested to issue a remote Work Permit, the permit can ONLY be issued if ALL the following criteria are satisfied:

- Where a visit to a site is prohibited due to location, PI availability and/or time constraints
- The PI knows the site or has reliable drawings and site data
- The PI has a detailed knowledge of the task and activities to be granted a permit
- A risk assessment has been completed for the activity
- The contractor is externally accredited (refer to Section 5.13)
- The PI has experience working with the contractor and individual PH
- An SPI confirms a remote permit is appropriate to be issued and the above criteria have been met

The process to issue a permit remotely is as follows:

1. The PI and PH discuss the hazards and risks associated with the task
2. A HITRA is completed
3. The PI completes the work permit
4. The work permit is shared with the PH electronically
5. The PH reviews the specific on-site conditions and confirms their understanding of the conditions and their ability to comply with the work permit requirements by signing the permit
6. The completed signed work permit is sent back to the PI electronically
7. The PI must verify they have a copy of the HITRA completed for the activity
8. A SPI must approve the remote permit. If the issuing PI is a SPI, a second SPI or PTWS Owner must approve the work permit

8.7. Self-permitting

No one is allowed to issue a permit to themselves.

8.8. Work Permit handover

When the Issuing PI ceases work prior to the days planned works completion time, or before the Work Permit period has expired or across shift changes, the Work Permit can be handed over to a relieving PI. The relieving PI must complete a handover discussion with the Issuing PI and PH, including a worksite inspection, to have a full understanding of the works involved and verify the controls in place. The relieving PI will sign on both copies of the permit in the Approvals section and supporting documents, as the "Alternate" - in doing so, accepting responsibility for the Work Permit (and any associated Certificates) for the remainder of the work period, or until the Work Permit is handed back to the issuing PI. The relieving PIs responsibilities include monitoring the worksite, make it safe to leave site and sign off the Work Permit at completion of the days' work.

Permit Holder (PH) can also complete a documented handover with a member of their work team if they need to leave site. The PI must be informed about the handover before the original PH leaves. Once again, the "Alternate" is signed by the incoming PH and accept the responsibility for the worksite.



8.9. End of day hand back

Once works being conducted under a Work Permit valid for more than one day have been completed for the day, the PH will contact the PI to hand back the work for the day and for the PI to verify the condition of work (refer Section 6.5.2). Once the PI is satisfied, the permit can be handed back to the site and the days' work completed. This is documented either on the Work Permit, or where a daily Work Clearance form is in use, the WCF form is signed off.

Hand back occurs at the end of each day of the permit's validation period (for a maximum of six days). At the end of the permit validation period the permit must be closed (refer to Section 8.2.3).

8.10. Permitting across the same organisation

A PI who has met the competency requirements to be a Z PI may issue a Work Permit to another person in the same contractor organisation, so long as the PI is not directly involved in managing or conducting the works (refer to Section 8.7).

8.11. Blanket Work Permits

Blanket permits are not allowed.



9. Administration

9.1. Documentation Control

All permits and supporting documentation relevant to a job shall be held in a single location on the site or by electronic means, enabling easy access for document review at times of permit revalidation, toolbox meetings, inspections etc.

Where practicable, supporting documentation should be stapled to the permit, or saved with the electronic permit. Where this is not practicable, a job specific folder shall be used and made available to all in either hard copy or electronic form.

9.2. Requesting Permits

Work permit requests should be initiated by the person or member of the group performing the work, or by the Z/Contractor Supervisor responsible for organising the work.

A competent PI must be engaged with sufficient notice (refer to Table 8, or as negotiated with the PI) before the date the permit is required (except in an emergency situation - refer Section 3.2).

Sufficient time is to be provided to the PI to enable thorough preparation, validation, and completion of PTWS documents.

If the PI does not receive sufficient notice or time to review the required documents, it may delay the issuing of a work permit and hence delay the work.

Table 8 – Permit requests timings

Activity Risk Level	Request periods
Low	Request may be made on the day of the activity
Medium	At least 48 hours prior to work commencing
High	At least five days prior to work commencing

9.3. Issued permits

Where hard copies of permits are used, the original (top) copy of the permit shall be issued to the PH and the second copy (or carbon copy) shall be retained in the permit office/board or retained by the PI. It is the responsibility of both parties to ensure all copies are legible.

Where an update to an existing hard copy permit is required, the second copy is to be returned, updates made to all copies, and all copies signed. In the event the second copy is not available (lost/destroyed/illegible), then a copy of the permit shall be taken, resigned, and re-issued to the PH.

In the case of electronic permits, the documents must be made available to both the PI and PH.

9.4. Permits held at worksite

The Permit Holder copy of the permit shall be accessible to all persons working on the job at all times. If, from discussions with the PH and the PI, it is deemed necessary/beneficial to physically display the permit at the worksite, it (or a copy thereof) should be visibly displayed.

9.5. Retention of records

When complete, the Work Permit (or at least one legible copy thereof) and supporting documentation must be retained, either by hard copy or electronic form, according to legislative and Z requirements for the following minimum periods or longer if required by legislation:

- Permits are to be kept by the site for a minimum of six years, including any associated certificates issued with the Work Permit
- Works involving Asbestos will be held for 40 years
- Permits involving health monitoring will be held for 40 years

Training and competency records for Permit Issuers must be retained according to legislative and Z requirements.



10. PTWS Effectiveness

Audits, reviews, and assessments of the PTWS, including PTWS documentation, are all important activities to provide assurance the PTWS is effective in managing HSSE operational risks during work activities. These are to be carried out as part of the Z's HSSE assurance programme.

10.1. Peer reviews of permits

Peer to peer assessments provide for good developmental opportunities for both the PI conducting the review and the issuing PI. Its intention is to raise the competency of both the reviewing PI and the issuing PI as they recognise and learn good practice from each other and share experiences between sites. This review should be considered opportunity for improvement by both PIs.

Where possible, the peer reviews should be set up between PIs from different sites and/or different business units.

Table 9 – Guide for permit peer reviews

Description	
Objectives	To provide peer to peer coaching opportunities that improve the quality of work permitting by both the PI under review and the PI conducting the review
Frequency	Each PI is to peer review one permit completed by another PI at a rate of 2 per annum
Reviewer	SPI or PI
Scope	<p>Reviews are to focus on the completeness of the PTWS documents, ensuring all fields are filled in and the PTWS requirements detailed in the documents are sufficient to cover the risks associated with the tasks.</p> <p>The review is to be conducted on either on a live permit or a closed permit. It is suggested reviews should focus on the permitting of high-risk activities.</p> <p>This can be a desk top exercise. However, it is preferable for the review to be conducted face to face when/if the opportunity for a reviewing PI to visit a work site arises.</p> <p>The ZORMD PTW Assurance Tool will guide the reviewing SPI on what to look for.</p> <p>A Safety and Wellbeing representative shall review and assess data on a quarterly basis to analyse for trends and insights and provide feedback to the SPI's and the PTW System Owner, including audit frequency compliance and data insights that might inform system or capability improvement opportunities.</p>
Information provided	<p>While on site, the PI will sample PTWS documents for a specific activity. This will include:</p> <ul style="list-style-type: none"> • PTWS Documents, including <ul style="list-style-type: none"> - HITRA Documents - Work Permit Forms - Certificates • Records of Toolbox talks



Description	
Reporting	<p>The PI reviewing the PTWS documents is to record observations and feedback using the ZORMD PTW Assurance Tool.</p> <p>If there is a need for additional coaching the PI can follow up with a discussion with the issuing PI, or if significant concerns on the quality of the documents, raise the issue with a SPI.</p>

10.2. Site PTWS reviews

It is important to determine the effectiveness of the PTWS implementation at site level. Where improvement opportunities are observed these are to be followed up in subsequent site PTWS reviews.

Table 10 – Guide for Site PTWS reviews

Description	
Objectives	To ensure that the Work Permit process is effectively utilised at site level and to ensure the Work Permit processes and procedures are implemented at each site
Frequency	The quality of work permits issued by all PIs is to be sampled on a regular basis by an SPI or a Z PI for Network sites, or if there are concerns about the quality of permits issued. The rate of sampling shall be no less than 25% of all PIs on a per annum basis. An annual review of quality is scheduled by the Safety, Wellbeing and Risk Systems Specialist in coordination with the PTW Custodian and agreed by the SPIs
Reviewer	The quality reviews are to be conducted by a SPI, or a Z PI for Network sites. For each SPI, at least 1 PTWS Review is to be undertaken on an alternative BU PI.
Scope	<p>Reviews are to include an inquiry into the risk discussions held prior to the completion of the PTWS documents and the Toolbox talks associated with the issuing of the work permit. Together, the PTWS documents and the risk conversations support the quality of the PTWS application.</p> <p>The ZORMD PTW Assurance Tool will guide the reviewing SPI on what to look for.</p> <p>A Safety and Wellbeing representative shall review and assess data on a quarterly basis to analyse for trends and insights and provide feedback to the SPI's and the PTW System Owner, including audit frequency compliance and data insights that might inform system or capability improvement opportunities. Improvement opportunities are to be logged in accordance with the continuous improvement processes i.e., formal PTWS backlog.</p>



Description	
Information provided	<p>While on site, the SPI will sample PTWS documents for a specific activity. This will include:</p> <ul style="list-style-type: none"> • PTWS Documents, including <ul style="list-style-type: none"> - HITRA Documents - Work Permit Forms - Certificates • Records of Toolbox talks <p>The SPI may have a discussion with the site PI(s) and contractors involved in the activity.</p> <p>It is suggested sampling should focus on the permitting of high-risk activities</p>
Reporting	<p>The SPI or Z PI reviewing the PTWS documents on site is to record observations and feedback using the ZORMD PTW Assurance Tool.</p> <p>Findings captured on the ZORMD PTW Assurance Tool need be verbally discussed to Site Manager and Permit Issuer(s) prior to leaving the site, including providing coaching for PIs and sharing recommended remedial action as also captured in ZORMD.</p>



10.3. Internal PTWS assurance assessment

As the PTWS is a key control for managing safety & wellbeing operational risks, it must be reviewed regularly to ensure it is implemented and working effectively across all Business Units.

Table 11 – Guide for the internal assurance review of the PTWS

Description	
Objectives	To ensure, through a formal review, that the PTWS is effectively utilised, and to ensure the PTWS processes and procedures are implemented
Frequency	Two yearly
Assessment Team	The assessment team is led by Safety, Wellbeing and Risk Systems Specialist and PTW Custodian, supported by a competent team
Scope	<p>Review the effectiveness of the PTWS and modify it where necessary as part of continuous improvement of ZORM.</p> <p>Factors to be considered include:</p> <ul style="list-style-type: none"> • changes in legislation • industry guides and good practice standards • review of Incident Reports • inspection and audit findings • feedback from users • Effectiveness of the PI Annual Engagement Plan <p>The review will also include a critical assessment of the PTWS Prelude and Purpose to ensure these remain fit for purpose and relevant.</p>
Provided information	<p>PTWS documents will be sampled from a number of sites. This will include:</p> <ul style="list-style-type: none"> • PTWS Documents, including <ul style="list-style-type: none"> - HITRA Documents - Work Permit Form - Certificates • Records of Toolbox talks • Interviews with users provide feedback on the PTWS
Reporting	<p>The results of internal assurance assessment are reported to the risk owner(s) and the PTWS Owner within one month of completion.</p> <p>The report is to include any shortfalls and recommendations for system improvements</p> <p>Where shortfalls are identified within particular Business Units, these and associated recommendations are shared with the relevant risk owner/ Business Unit GM.</p>



10.4. External PTWS Audit

Ensuring the PTWS remains up to date with current best industry best practice and legislative requirements is key to ensuring its effectiveness. External expertise is engaged to provide an outside in perspective on the effectiveness of the PTWS.

Table 12 – Guide for the external PTWS audit

Description	
Objectives	To provide an independent view of the effectiveness of the PTWS
Frequency	An external audit is to be completed on a three-yearly basis
Audit team	Audit team to be led by an external accredited auditor with appropriate experience, with support provided by SPI(s) and Safety, Wellbeing and Risk Systems Specialist
Scope	<p>The scope for the external audit criteria to be provided to external auditor prior to planned audit date.</p> <p>This is a review of the Permit Process against industry best practice, and not individual PI's. The auditor, as part of evidence gathering, may call upon individual PI's. If required, the audit may include a site visit to aid with understanding of system deployment.</p> <p>Items for inclusion in scope of audit to include (<i>but not limited too</i>):</p> <ul style="list-style-type: none"> • Compliance to current HSWA Act • Any gaps for upcoming legislative changes • Compare the PTWS against others available in industry • Review of training processes for staff - including initial training and sign-off process • Competency of PTWS positions • Review existing internal audit process • Robustness of PTWS system to cover all expected work activities to meet industry best practice through the following: <ul style="list-style-type: none"> - HITRA - Identification and Isolation of equipment, including Lock Out procedures - Gas Testing training and procedures meet Industry best practice - Work Permitting processes are adequate for permit types
Provided information	<p>The auditor will be provided with information on request pertaining to the PTWS, which may include current versions of the following;</p> <ul style="list-style-type: none"> • PTWS Manual • PTWS Documents, including <ul style="list-style-type: none"> - HITRA Documents - Work Permit Form - Certificates • Records of Toolbox talks • Interviews with PIs, SPIs and contractors
Reporting	<p>The results of the external PTWS audit are reported to the PTWS Owner, PTWS Custodian and the HSSE Assurance Manager within one month of completion.</p> <p>The report is to include any shortfalls and recommendations for system improvements.</p>



10.5. Formal (non-SPI) Assurance Assessment

Industry good practice suggests (HSE UK Practice Guidance) that a permit to work system should be formally audited by persons not directly associated with or having any responsibility for the system. The Formal (non-SPI) Assurance Assessment has been developed to give this degree of separation in terms of independent assessors. This diverse element is designed to capture system compliance in terms of application, as well as generate insights that could contribute to both continuous improvement and identification of system gaps

Table 13 – Guide for the external PTWS audit

Description	
Objectives	To provide a diverse assessment using non-SPI assessors to conduct a conversational styled audit across a fixed range of topics in a one-to-one setting. Further, the process provides an ideal engagement tool for senior management to demonstrate commitment to the control of work processes and seek assurance that the system is effective and fulfilling its intended purpose
Frequency	The Formal Assurance Assessment is to be completed by nominated Z staff at an agreed frequency of not less than 2 audits per annum
Audit team	Each Assessor, appointed jointly by the Head of Property and Assets and National Operations Manager, will have an agreed audit frequency as part of their respective quarterly and annual performance targets.
Scope	<ul style="list-style-type: none"> • Each Assessment will rotate with a choice of two focus areas: <ul style="list-style-type: none"> ○ HITRA ○ General ○ Toolbox ○ Continuous Improvement ○ Documentation ○ Risk Identification ○ Senior Permit Issuer • Each Assessor will conduct at least one assessment per annum outside of their BU. • The Assessment questions will be open type and the Assessor will apply the "5 whys" methodology to drill into the deeper understanding of the why, where, and how of the application of Z's PTW System. The Assessor listens for cues and directs their enquiry as the conversation unfolds. This tool is a series of starters and will help to kick off the conversation. The auditor will record important outcomes and insights as well as provide general gradings where applicable.
Provided information	Assessors will use the Formal (non-SPI) Assurance Assessment framework included in the appendix 5 and use form HS-IOA-FOR-031
Reporting	At the conclusion of each assessment, the Assessor will brief attendees and provide feedback in the moment including examples of good practice, any gaps identified and any improvement opportunities in the PTWS. Assessment reports will be filed at the ZORM Record library .



Appendix 1: Glossary

Term	Definition
AGT	Authorised Gas Tester (refer to <i>Section 4.3.1</i>)
API	American Petroleum Institute
AS	Australian Standards
Close Approach Clearance	Close Approach Clearance is provided to third party contractors performing works adjacent to sites under Z's operational control
Competent person	A person who has acquired, through training, qualification, or experience the knowledge and skills to carry out the task, and where required has met the regulatory requirements to carry out the task
Confined Space (as per AS 2865: 2009)	An enclosed or partially enclosed space that is not intended or designed primarily for human occupancy, within which there is a risk to a person occupying the space (refer to the <i>QRG-Confined Space Decision Tree</i>)
Confined space entry (CSE)	For the purpose of this manual, a person whose head, i.e. the breathing zone, or upper body, is within a Confined Space is considered to have entered the confined space
Consequence	The harm and damage that could result from a hazard or risk
Contractor	Any contractor company or subcontractor company engaged to carry out works for Z and any workers of such companies
Crane	Crane means a powered device that: <ul style="list-style-type: none"> (a) is equipped with mechanical means for raising or lowering loads suspended by means of a hook or other load handling device (b) can, by the movement of the whole device or of its boom, jib trolley, or other such part, reposition or move suspended loads both vertically and horizontally <p>Includes all parts of the crane down to and including the hook or load-handling device, and all ropes, wires, chains or other devices used to move the hook, or device. Does not include lifting tackle that is not an integral part of the crane</p>
CSD	Critical Safety Device. Refer to <i>HS-IOAPRO-002</i> for a definition of CSDs
ERP	Emergency Response Plan
Fixed assets	Fixed assets are considered as immobile plant i.e. pipes, pumps in situ, tanks etc. Fixed assets do not include vehicles or equipment moved off site for works (i.e. repairs at a third-party location)
GM	General Manager – Person in charge of a particular Business Unit



Term	Definition
Hazard	<p>An activity, arrangement, circumstance, event, occurrence, phenomenon, process, situation, or substance (whether arising or caused within or outside a place of work) that is an actual or potential cause or source of harm and includes:</p> <ul style="list-style-type: none"> (a) a situation where a person's behaviour may be an actual or potential cause or source of harm to the person or another person (b) without limitation, a situation described in subparagraph (a) resulting from physical or mental fatigue, drugs, alcohol, traumatic shock, or another temporary condition that affects a person's behaviour
Hazardous Zones	<p>A Hazardous Area is defined in NZS 60079 "Classification of Hazardous Areas" as "an area in which an explosive atmosphere is present, or may be expected to be present, in quantities such as to require special precautions for the construction, installation and use of potential ignition sources"</p>
HITRA	<p>Hazard Identification and Task Risk Assessment – section 6.2.2 includes information on HITRA</p>
Home based storage locations	<p>Equipment owned by Z and located at a customer site</p>
Hot work	<p>Hot work is work that may create sufficient energy to ignite a flame or combustible dusts (all other work is considered cold work)</p>
HSSE	<p>Health, Safety, Security, Environment (now referred to as "Safety and Wellbeing")</p>
Ignition source	<p>A source of energy sufficient to ignite a flammable or explosive atmosphere, or material (dust, grass, paper, timber etc.)</p>
Inspection	<p>Checking the requirements and controls for an activity are in practice using a using a checklist or equivalent document</p>
ISN	<p>ISNetWorld is a specialist contractor accreditation supplier. Z has engaged ISN as the provider to externally accredit 'We're connect' PCBU partners against Z's HSSE requirements</p>
Isolation	<p>A physical barrier between a source of energy (mechanical, electrical, hydraulic, or static head) or process materials and a place of work</p>
JSA	<p>Job Safety Analysis - an alternative risk assessment document to HITRA that can be used for low or medium-risk activities</p>
LOTO	<p>Lock Out Tag Out</p>
Low Risk Activity	<p>Any activity where the consequences of any associated undesired event(s) are considered 'low' using's Z's Risk Assessment Matrix (RAM). A list of activities pre-assessed as Low is included in Appendix 5</p>
MOC	<p>Management of Change</p>



Term	Definition
Manned sites	<p>Z sites where staff are present during the operation of the site. Manned sites include:</p> <ul style="list-style-type: none"> • All Supply sites • Retail sites where staff are present (i.e. during opening hours) <p>The alternative to manned sites is Unmanned sites</p>
Monitoring	Routine checking of permits and controls in the course of the work
Network sites	These are facilities under Z's operational control that are downstream from our Supply sites, including operational and closed Retail Service Stations, TruckStops, General Aviation sites and home-based storage locations, and work conducted under a Z construction contract
Non-routine work	Work that is not performed regularly (refer <i>Section 6.1.2</i>)
Notifiable works	<p>Notifiable works is required for particular hazardous work.</p> <p>Notifiable works, as defined in Health and Safety in Employment Regulations 1995, requires employers as well as the person who controls a place of work to provide at least 24 hours' notice to WorkSafe of particularly hazardous work as defined below. Notifications of hazardous work assist WorkSafe's workplace health and safety services to plan workplace visits to promote the prevention of harm to all persons at, or in the vicinity of, a place of work</p>
NZQA	New Zealand Qualifications Authority
NZS	New Zealand Standards
Permit / Permit to Work	The terms 'Permit', 'Work Permit' or 'Permit to Work' mean the same thing. Refer to 'Work Permit' for definition
Permit validity period	The period during which a permit may remain active, and after which the work site controls must be reassessed (refer <i>Section 8.3</i>)
Permit Holder (PH)	PH is the person whom the permit is issued (refer to <i>Section 4.2.7</i>)
Permit Issuer (PI)	Permit Issuer is a competent, certified person, currently authorised by Z in writing, to issue work permits for work in a defined area (refer to <i>Section 4.2.5</i>)
Probability	The likelihood something will happen
PTWS	Z's Permit to Work System
QRG	Quick Reference Guide
R&A	Z's Risk and Assurance team
Review	Examining the fundamental design of the system to see whether it should be changed in the light of experience
Risk	The probability and consequences of a hazard resulting in harm or damage



Term	Definition
Risk Assessment Matrix (RAM)	Z's Enterprise Risk Assessment Matrix
Safety critical device	An essential safety device designed to prevent injury or incident; including devices required to de-energise a hazardous energy source
Senior Permit Issuer (SPI)	A competent, certified person responsible for monitoring the operational performance of the PTWS and ensure consistent workable standards are maintained (refer Section 4.2.4)
Site Representative	Person responsible for the overall safety of a particular site. This could be the Site Manager, terminal manager, construction manager, or a designated employee (refer Section 4.2.9)
SOP	Standard Operating Procedure - An existing procedure that provides instruction on conducting a routine work activity (refer to Section 6.1.2.1).
Supply sites	These are sites under the operational responsibility of Z's Supply Business Unit. Supply sites include Z's Fuel Storage Terminals, Christchurch Airport Depot and Te Kora Hou (Biodiesel Plant)
SWAT	Safety Walk and Talk
SWMS	Safe Work Method Statement – an alternative risk assessment document to HITRA that can be used for low or medium-risk activities
SWP	Safe Work Practice
Third Party Works	Third party works is work conducted by a contractor not engaged by Z, that has the potential to impact of the safety of Z assets and/or personnel (refer Section 3.2.1)
Toolbox meeting	A key worker engagement approach involving a safety focused discussion with Permit Issuer, Permit Holder and the Work Team performing work on the site (refer Section 6.3.1)
Unmanned sites	Z sites where staff are not present during the operation of the site. Unmanned sites include: <ul style="list-style-type: none"> • TruckStops • General Aviation sites • Retail sites where no staff are present i.e. retail sites during closed hours, and fuel only sites with no staff The alternative to unmanned sites is manned sites
US	Unit Standards (usually used in conjunction with NZQA)
Work	Activity conducted by workers that introduce a level of risk to a workplace



Term	Definition
Worker	<p>Someone who carries out work in any capacity for Z or at a Z workplace, including work as:</p> <ul style="list-style-type: none"> • a Z employee • a contractor or subcontractor • an employee of a contractor or subcontractor • an employee of a labour hire company who has been assigned to work for Z or at a Z workplace • an apprentice or trainee • a student gaining work experience • a volunteer
Workplace	A place where work is carried out for Z or on behalf of Z and includes any place where a worker goes, or is likely to be, while at work.
Work Clearance Form (WCF)	A document used to identify and review the hazards inherent in the work being undertaken (refer <i>Section 7.1</i>)
Work Permit	<p>Also referred to as 'Permit' or 'Permit to Work'.</p> <p>A contract between an authorised Permit Issuer and a Permit Holder, describing the works to be completed with the agreed controls as specified in supporting PTWS documentation (refer <i>Section 1.7</i>)</p>
Z	Z Energy Limited



Appendix 2: References

External References

The latest issues of following standards shall be available for reference.

External Reference	Description / location
NZ Health and Safety Laws	Health and Safety at Work Act 2015 Health and Safety in Employment Regulations 1995 Electricity (Safety) Regulations 2010 Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999
WorkSafe Particular Hazardous Work Notification Form	https://forms.worksafe.govt.nz/hazardous-work-notification

Internal References

Additionally, the following Z documents shall be available for reference:

Internal Reference	Description
PTWS Support Procedures	
HS-IOA-PRO-009	Lock out, Tag Out Procedure
HS-IOA-GUI-010	Working at Heights SWP
HS-IOA-GUI-011	Excavation SWP
HS-IOA-GUI-012	Confined Space Entry SWP
HS-IOA-GUI-013	Hot Work SWP
HS-IOA-GUI-014	Lifting Operations SWP
HS-IOA-GUI-015	Electrical Work SWP
HS-IOA-PRO-010	Asbestos Management Plan
HS-MOR-PRO-003	HITRA Procedure
Retail Document	How to Guide for Construction and Maintenance
PTWS Forms	
HS-CSP-FOR-006	Work Clearance Form
HS-IOA-FOR-019	Work Permit – Network
HS-IOA-FOR-008	General Work Permit Form – Supply
HS-IOA-FOR-009	Lock out, Tag Out Certificate
HS-IOA-FOR-010	Working at Heights Certificate
HS-IOA-FOR-011	Excavation Certificate
HS-IOA-FOR-012	Confined Space Entry Certificate
HS-IOA-FOR-013	Hot Work Certificate
HS-IOA-FOR-014	Lifting Operations Certificate
HS-IOA-FOR-015	Energised electrical Work Certificate
HS-IOA-FOR-016	Retail Tank removal/installation Certificate
HS-IOA-FOR-017	Retail Demolition Certificate
HS-MOR-FOR-021	Z Hazard Identification Task Risk Assessment (HITRA) Form
HS-MOR-FOR-013	Safe Work Method Statement (SWMS) Form
HS-MOR-FOR-003	Job Safety Analysis (JSA) form
HS-IOA-FOR-003	Close Approach Clearance form
HS-IOA-FOR-004	Permit Revalidation Form
HS-IOA-FOR-007	Permit Issuer Competency Assessment form
On line	PTWS Qualifying Test Questionnaire
HS-IOA-FOR-005	Rescue Plan Template



Internal Reference	Description
HS-IOA-FOR-006	Traffic Management Plan Template
HS-ENG-FOR-003	Safety Walk and Talk Form
PTWS Guides	
HS-IOA-GUI-005	List of PIs
HS-IOA-GUI-007	PI Competency - QRG
HS-IOA-GUI-008	PTW Workflow
HS-IOA-GUI-016	CSE Decision Tree
HS-IOA-GUI-017	LOTO Workflow
PTWS Training	
eLearning Modules	<ul style="list-style-type: none"> • Introduction to Z's Permit to Work System • Permit Issuer Responsibilities • Applying Z's Safe Work Practices (7 separate modules)
Practical application of Z's PTWS	Presentation pack to be used by SPI/PTWS Trainer to conduct face to face training for PI candidates
Training Records	Maintained in Risk Manager – Training and Competency modules
ZORM Documents	
HS-CPB-PRO-001	Z's approach to building HSSE capability
HS-ENG-PRO-002	Z's approach to the PCBU concept
HS-CSP-PRO-001	Z's approach to contractor and supplier management
HS-IOA-PRO-002	Z's approach to managing asset integrity
HS-CSP-PRO-002	Supplier accreditation procedure
HS-ENG-FOR-005	Toolbox Talk Form
HS-ENG-GUI-005	Toolbox Talk Guide
HS-MOR-FOR-015	Request for derogation
HS-PRM-PRO-002	ZORM continuous improvement cycle
HS-MOR-FOR-017	Management of Change Form
Z Enterprise Documents	
HSSE	Z's PCBU Policy
R&A	Z's Risk Assessment Matrix (RAM)
HSSE	Z Life Savers
HSSE / R&A	Risk Flip Book
Retail	External internet site for Retail Contractors - http://z.co.nz/ptwinfo



Appendix 3: Z PTWS Hazardous Work Activity Tables

The following tables specify activities in Z's operations where hazardous work is involved. All work must have a suitable and sufficient risk assessment (e.g., HITRA, JSAs, Safe Work Method Statements (SWMS), etc.). The robust identification of hazards and risks ensures the correct control measures (e.g., work permits, certificates, safe work practices to be followed, etc.) are identified and implemented for safe work.

In general, the activities have been grouped as follows:

Table 1: Activities where a work permit is always required in addition to documented risk assessments.

Such activities are generally considered high-risk, non-routine, and where there are no standard operating procedures that cover the particular activity.

Table 2: Activities where a work permit may not be required (i.e., activities that can be self-managed by Z accredited (ISN) contractors

Documented risk assessments should still be in place and control measures are applied. Such activities are generally considered medium risk, are frequently carried out by specialist contractors in the Retail Network using good practice controls, and where there are no standard operating procedures that cover the particular activity.

Table 3: Activities where a work permit is not required. Such work is generally considered low risk, are frequently carried out, and by competent persons.

Notes:

1. The requirements of Z's Permit to Work System (PTWS) are intended allow Permit Issuers to make decisions for how work can be safely managed and should be applied where relevant to the risk assessment.
2. It is not practical to identify all and specific requirements for each hazardous work activity. It is expected the Permit Issuer applies knowledge and experience to determine the appropriate measures.
3. Where PTW requirements are expressly indicated, these must be applied.
4. AND means in addition, OR means one or the other, and AND/OR means one or more may be relevant and should be applied.



Table 1: High-risk activities (where a work permit is always required in addition to documented risk assessment)

These activities require work permits and relevant permit-to-work certificates in addition to documented risk assessments, e.g., HITRA, safe work method statements or job safety analyses (JSAs) for the hazardous work/s involved. Such activities are generally considered high-risk, non-routine, and where there are no standard operating procedures that cover the particular activity.

Hazardous Activity	Description
Asbestos work	<p>Must be done under permit. Z's position is that any works involving maintenance, modification or removal of building structures or other assets containing asbestos must be completed by a licensed asbestos removal contractor, regardless of the size of asbestos to be removed.</p> <p>Where the presence of asbestos is unknown, the activity must be undertaken as if asbestos was known to be present.</p> <p>For any work involving asbestos the Permit Issuer must ensure that:</p> <ul style="list-style-type: none"> • Health and Safety at Work (Asbestos) Regulations 2016 have been reviewed and assure themselves that the work to be completed complies with the regulations. • Related guidance documents contained on the WorkSafe website have been reviewed and assure themselves that the work to be completed complies follows this guidance <p>Any asbestos work must follow the Asbestos Management Plan (HS-IOA-PRO-010)</p> <p>Refer to WorkSafe NZ guidance material - https://worksafe.govt.nz/topic-and-industry/asbestos/working-with-asbestos/</p>
Canopy or Shop Roof construction and/or installation	<p>Lifting of canopy structure into final position, installation of roof cladding on canopy, shop and other buildings. Refer to the Site HSSE Guide for Construction and Maintenance</p>
Confined space entry (CSE)	<p>Entry to an enclosed or partially enclosed space which is not intended or designed primarily as a place of work; may have restricted means for entry and exit; and may have an atmosphere which contains potentially harmful levels of contaminant; not have a safe oxygen level; or cause engulfment.</p> <p>Tank top manway risers >1.5m below ground level require a permit before entry.</p> <p>To determine whether the workspace is considered confined space, the <i>Confined Space Risk Rating Decision Tree</i> is to be followed. The decision tree is based on the definition of confined space in AS/NZS 2865.</p> <p>If confined space: Work Permit AND Confined Space permit-to-work certificate AND Safe Work Methods Statement for hazardous work involved</p> <p>All requirements set out in AS/NZS 2865 are to be followed by competent persons.</p> <p>Refer to Z's Safe Work Practice for Confined Space Entry (HS-IOA-PRO-012)</p>
Crane work or load lifting or rigging operations	<p>Use of cranes and mechanical lifting equipment (including Hiabs) on site. Rigging refers to the use of mechanical load-shifting equipment and associated gear to move, place or secure a load. Lifting loads with rigging predominantly involves working and/or load traversing at height. Risks of workers falling, or suspended loads falling must be considered.</p>



Hazardous Activity	Description
	<p>For standard deliveries of stock or delivery of and movement of construction materials on Z sites, a work permit is not required. Ensure documented risk assessments for the task is in place, e.g. JSAs, safe work method statements.</p> <p>Refer to Z's Safe Work Practice for Lifting Operations (HS-IOA-PRO-014)</p>
Critical Safety Device override (C1)	<p>Activity is considered high risk if a standard operating procedure has not already been approved and the activity involves overriding or disabling a safety-critical device. This applies when leaving a site operating with a disabled safety-critical device.</p> <p>Returning a Critical Safety Device into service is also considered a high-risk activity.</p> <p>C1 CSDs are as defined using the Major Hazard Facility regulations.</p> <p>Any situations involving a CSD override must be managed by a SOP or Management of Change (MOC)</p> <p>For a more detailed definition of C1 and C2 safety critical device refer to HS-IOA-PRO-002 - <i>Z's approach to managing asset integrity</i>.</p>
Demolition	<p>Demolition work means any work that involves the demolition or dismantling of a structure or part of a structure that is load bearing or is related to the physical integrity of the structure. It does not include: the dismantling of formwork, falsework, scaffolding, or other structures designed or used to provide support, access or containment during construction work, or the removal of power, light or telecommunication poles.</p> <p>No work permit is required for soft strip-out, except where asbestos may be involved. Refer to the Z Site HSSE Guide for Construction and Maintenance and WorkSafe guidance on demolition work (and refurbishment).</p>
Drilling of monitoring wells or soil borings – Mechanical drilling	<p>Drilling and test borings for soil, groundwater, and bedrock investigations where there is use of mechanical drills.</p> <p>Refer to the Z Site HSSE Guide for Construction and Maintenance</p>
Dusty construction works from dry concrete, stone, brick	<p>Drilling, abrasive blasting, cutting, grinding, fettling, mixing, handling, dry shovelling and tunnelling (when materials containing silica are cut, ground, drilled or otherwise disturbed).</p> <p>Refer to WorkSafe NZ guidance material – https://worksafe.govt.nz/topic-and-industry/dust-and-fumes/dust/silica-dust-in-the-workplace/</p>
Energised high-pressure system work (Schedule 1)	<p>Work on pressurised systems as defined in the Health and Safety in Employment (Pressure Equipment, Cranes, Passenger Ropeways) Regulations 1999 – Schedule 1.</p> <p>For the purpose of Z PTWS, the definition does not include energising equipment and lines for testing or samples, or air compressors.</p>
Excavations	<p>Excavations that are likely to have the following hazards and risks, including trenching activities:</p> <ul style="list-style-type: none"> • Presence of utilities – where the location of utilities is unknown or uncertain, the risk of the activity is to be considered as high • Near or below the footing of structures, e.g. retaining walls, building foundations, existing trench. • Presence and amount of contaminated soil • Excavations \geq 1.5 m



Hazardous Activity	Description
	<ul style="list-style-type: none"> • Soil condition – any activity requiring battering or shoring of a trench >1.5m deep • Historical or significant site – if there are any cultural or historical sensitivities associated with the work site the activity is to be considered as high risk • Water table level • Method of excavation • Tasks that require entry to excavations may be work in confined space. Refer to confined space decision tree. This includes work in any tank pit or separator excavation (refer to confined space entry requirements)
Hot work in a hazardous zone	<p>Hot work is any work that may produce a source of ignition. This includes using any equipment that is not rated for use in a hazardous zone. It also includes any work that may result in a spark entering a hazardous zone, such as:</p> <ul style="list-style-type: none"> • Welding, soldering • Fires or naked flames • Use of non-flameproof or non-intrinsically safe electrical equipment. • Blowtorches, flame cutting, any work involving an open flame • Sparking from jack hammers or concrete saws • Power cutting, drilling, grinding • Use of portable electric heaters • Electrical tools or equipment that are not explosion-proof or intrinsically safe • Sandblasting operations • Operation of internal combustion engines • Work on live electrical conductors and opening live electrical enclosures <p>Hot work in hazardous zones is as per the Classification of Hazardous areas AS/NZS60079.10.1:2009. Areas are to be considered as hazardous zones when the areas are defined in site Hazardous Zone drawings or where certain conditions could create the presence of vapours, i.e. during tanker or tank truck discharge, or when wind conditions move vapours to certain areas.</p> <p>Diesel storage and dispensing facilities do not have Hazardous Zones as defined in AS/NZS60079.10.1. However any hot works undertaken on a diesel tank or its fittings shall require a Hot Work Permit to be issued.</p>
Live electrical work	<p>In principle, any live electrical work for Z can and must be avoided. If the activity meets the definition of high risk prescribed live electrical work as detailed in the Electricity (Safety) Regulations 2010, and it cannot be isolated, then it is to be considered high-risk for Z.</p> <p>An exception to this definition is where work is being undertaken for the purpose of fault finding.</p> <p>Refer to Z's Safe Work Practice for Electrical Work (HS-IOA-GUI-015)</p>
Live energised product line work	<p>Includes non-routine work not covered by an approved standard operating procedure on pressurised or live energised product lines where product is present (for example, modifications to existing fuel lines).</p> <p>Does not include energising equipment and lines for testing or samples, or de-energised lines.</p> <p>Refer to Lock Out, Tag Out Procedure (HS-IOA-PRO-009)</p>



Hazardous Activity	Description
Non-routine work on fuel storage tank tops	Includes repairs and maintenance work undertaken from or on the top of tanks.
Removal of substances containing lead	Work that may expose workers to lead such as entry to and cleaning of tanks previously used to store leaded products or with lead lining or coating.
Tank removal and/or installation	Where tanks are being removed Where tanks are being replaced or installed at a new site. Refer to the <i>Site HSSE Guide for Construction and Maintenance</i>
Work at height exceeding 1.8 metres	Height is measured from the lowest point of the worker's body. Note: All regulatory requirements must be met when using a scaffold, scissor lift, boom lift, or permanent ladder. For work <5 m when working on scaffold or EWP (a work permit is not be required. Ensure documented risk assessments for the task is in place, e.g. JSAs, safe work method statements, and SOPs. Refer to Z's Safe Work Practice for Working at Heights (HS-IOA-GUI-010)
Working on a non-trafficable secondary surface	Includes, but is not limited to: <ul style="list-style-type: none"> • ceiling cavities • On or within 2 m of brittle roofs • On or within 2 m skylights • single skin, under slung canopies Refer to the <i>Site HSSE Guide for Construction and Maintenance</i>
WorkSafe NZ Notifiable Work	Anything that has not been already covered in this table and is considered Notifiable Work by WorkSafe NZ. Follow guidance provided by WorkSafe NZ is available for the activity type https://worksafe.govt.nz/notifications/hazardous-work/



Table 2: Medium-risk activities (where a work permit is not required unless determined by the business unit)

These include activities that can be self-managed by Z accredited (ISN) contractors. Documented risk assessments, e.g., HITRA, safework method statements or job safety analyses (JSAs) for the hazardous work/s should be in place and control measures applied. Such activities are generally considered medium risk, are frequently carried out by specialist contractors in the Retail Network using good practice controls, and where there are no standard operating procedures that cover the particular activity.

Activity	Description
Critical Safety Device override (C2)	<p>This activity requires a permit where a standard operating procedure has not already been approved and the activity involves overriding or disabling a C2 safety-critical device. This applies when leaving a site operating with a disabled C2 safety-critical device. Returning a C2 Critical Safety Device in to service requires a work permit.</p> <p>C2 CSDs are present on both Network and Supply sites. For a more detailed definition of C2 safety critical device refer to HS-IOA-PRO-002 - Z's approach to managing asset integrity. Any situations involving a CSD override must be managed by a SOP or Management of Change (MOC)</p>
Drilling of monitoring wells or soil borings - No mechanical drilling	Drilling and test borings for soil, groundwater, and bedrock investigations where mechanical drills are NOT used.
Excavation	Excavations not assessed as high risk Refer to Z's Safe Work Practice for Excavations
Energised pressure system work (Schedule 2)	<p>Work on a pressurised system that does not meet the definition of a pressure vessel (as defined in the Health and Safety in Employment (Pressure Equipment, Cranes, Passenger Ropeways) Regulations 1999, Schedule 1), e.g. included in Schedule 2 of the PECPR regulations:</p> <p>Refer to Lock Out, Tag Out Procedure (HS-IOA-PRO009)</p>
Hot work OUTSIDE hazardous zone	Hot work outside of the hazardous zones, including, but not limited to welding, grinding, portable heat sources.
Non-powered hoist use involving a suspended load	Where goods or equipment are lifted and moved using non-powered mechanical means
Pump-out of product from tanks	Pump out of product from storage tanks using non-fixed piping and transfer pumps, e.g., pump out of contaminated product, or at a facility where flexible hoses or temporary piping is required.
Restricted space	<p>Work on restricted spaces not considered as confined space (when using the Confined Space Decision Tree). Examples of restricted spaces not considered confined space may include:</p> <ul style="list-style-type: none"> • manhole risers or tank sumps <1.5m • interceptors or grease traps • ceiling spaces that do not meet the definition of a confined space
Work at height <1.8 metres	Height is measured from the lowest point of the worker's body.



Activity	Description
Work offsite in roadways	Work in roadways, e.g., connection of services including sewer, electrical power, or water utilities or drainage.
Work on low-voltage equipment and circuits	<p>Any voltage exceeding 50 volts AC or 120 volts ripple-free DC but not exceeding 1,000 volts AC or 1,500 volts ripple-free DC. For example: 50 V alternating current and 120 V direct current up to 1,000 V AC and 1500 V DC</p> <p>Includes fault finding, trouble shooting, and/or diagnostics on electrical equipment where the equipment will be energised to allow this. All other de-energised prescribed electrical work, including additions and alterations to final circuits, or the installation of new and replacement equipment.</p> <p>'Lock Out, Tag Out' is to be applied for all repairs and replacement of parts. Refer to Lock Out, Tag Out Procedure (HS-IOA-PRO-009)</p>
Any other activity	Any other activity that has a medium residual risk when assessed using the HITRA process, or any other activity as determined by Z Energy's senior management and/or senior permit issuer to be assessed as a medium risk activity when using the HITRA process and Z's Risk Assessment Matrix, or any other activity that would benefit from being managed using the same PTWS approach as a medium risk activity.



Table 3: Low-risk activities (where a work permit is not required)

These activities do not require work permits. Such work are generally considered low risk, and carried out by competent persons.

Activity	Description
Critical Safety Device override (C3)	<p>This activity is considered low risk where a standard operating procedure has not already been approved and the activity involves overriding or disabling a C3 safety-critical device. This applies when leaving a site operating with a disabled C3 safety-critical device.</p> <p>C3 CSDs are present on both Network and Supply sites.</p> <p>For a more detailed definition of C3 safety critical device refer to <i>HS-IOA-PRO-002 - Z's approach to managing asset integrity</i>.</p> <p>Any situations involving a CSD override must be managed by a SOP or Management of Change (MOC)</p>
Internal office maintenance	<p>General maintenance within an office building where no part of the activity is considered as Medium or High risk</p> <ul style="list-style-type: none"> • plastering and painting • repairs to office equipment i.e. photocopiers, desks
Utilities repairs	Repairs to utilities, outside hazardous zones, where no part of the activity is considered as Medium or High risk
Window washing (ground level)	Window washing that is undertaken from ground level
Gardening / Lawn mowing	Any work on gardens, lawns or trees that is undertaken without power tools and from ground level



Appendix 4: Activities excluded from the PTWS requirements

Activity	Description
Standard deliveries-only services	<p>This exclusion is only for routine deliveries of stock to a stock receiving area. Suppliers are responsible for completing a hazard identification and Operational risk assessment for the delivery services, including:</p> <ul style="list-style-type: none"> • implementing any controls identified to eliminate or reduce Operational risk • having competent delivery staff trained in manual handling • having drivers who hold a current driver's licence for the specific delivery task requirements <p>Deliveries that are not considered routine must be risk assessed and the activity managed under the requirements of the associated risk level</p>
Office cleaning	<p>This exclusion is only for the usual routine office cleaning activities undertaken by a contracted cleaning supplier.</p> <p>The cleaning supplier is responsible for completing a hazard identification and Operational risk assessment for the cleaning services provided.</p> <p>Cleaning activity that not considered as routine, or are being undertaken by an alternative supplier, must be risk assessed and the activity managed under the requirements of the associated risk level</p>
No tools involved	<p>Where work is being undertaken for the purpose of visual inspections only and other situations where tools are not involved.</p>
Visitors to site	<p>Where a visitor will be escorted at all times during their visit.</p> <p>Refer to <i>Section 6.4.3</i> for further instructions on visitors to site</p>



Appendix 5: Formal (Non-SPI) Assurance Assessment

Forward

Industry good practice dictates that a permit to work system should be formally audited by persons not directly associated with or having any responsibility for the system.

As part of a multi-tiered approach to providing assurance relating to Z's PTW system, a formal (non-SPI) assurance process has been developed to give this degree of separation. This diverse element is designed to capture system compliance in terms of application, as well as generate insights that could contribute to both continuous improvement and identification of system gaps.

Below is a summary of current PTW assurance processes – as part of Z PTW Manual:

1	PI to PI Assurance	Line 1	Limited assurance value
2	SPI to PI Assurance	Line 2	Primary assurance
3	2-year Internal Audit	Line 3	Assurance and PTWS Overview
4	2-year External Audit	Line 3	Reduced to ISO only
5	(New)Formal (Non-SPI) Audit	Line 3	Leadership and high-level assurance

The proposed additional audit process utilises expertise and experience that exists within the business and may include individual's belonging to the BFLT, the Network LT, SLT, RLT and Executive, not directly or indirectly associated with management of control of work processes.

The delivery of this line of assurance demonstrates a commitment by Z Energy to ensure management of high-risk non-standard activities using Z's PTWS are controlled effectively, and areas of system non-compliance are recorded and addressed.

The assessment process uses lines of inquiry to generate a conversation with a PI or SPI to understand how well the PTW system is functioning and to provide a narrow focus and detailed performance assessment of each of the PTW elements.

Assessment Principles

- Each Assessor, appointed jointly by the Head of Property and Assets and National Operations Manager, will have an agreed audit frequency as part of their respective quarterly and annual performance targets. It is expected that each Formal Assessor shall complete between 2 and 4 audits per year.
- At the conclusion of each assessment, the Assessor will brief attendees and provide feedback in the moment including examples of good practice, any gaps identified and any improvement opportunities in the PTWS. Assessment reports will be filed in a common repository.
- Each Assessment will rotate with a choice of two focus areas:
 - HITRA
 - General
 - Toolbox
 - Continuous Improvement
 - Documentation
 - Risk Identification
 - Senior Permit Issuer
- Each Assessor will conduct at least one assessment per annum outside of their BU.
- The Assessment questions will be open type and the Assessor will apply the "5 whys" methodology to drill into the deeper understanding of the why, where, and how of the application of Z's PTW System. The Assessor listens for cues and directs their enquiry as the conversation unfolds. This tool is a series of starters and will help to kick off the conversation. The auditor will record important outcomes and insights as well as provide general gradings where applicable.



Note:

Common failures in permit to work systems are a failure to follow the PTW or isolation procedures, risk assessments that are not suitable and sufficient to identify the risks, and/or the control measures and a combination of the two (UK HSE).

Assessment Framework**HITRA**

1. Please explain what a HITRA is and why it is applied to high-risk work activities.
2. How would you prepare a HITRA for high-risk work about to be carried out?
3. Can you explain how to identify risks in specific works – pick an example.
4. Please explain the difference between hazard and risk in relation to Z's PTW process?
5. How and why do you communicate the HITRA to others? Please refer to a recent example.
6. Walk me through a HITRA example completed within the last 6 months.
7. From experience gained using the system, how would you improve the HITRA process?
8. Key Characteristics
 - a. Overall understanding of the principles of HITRA?
 - b. Effectiveness of the HAZ ID process as observed?
 - c. Clear demonstration of the specific work risks in the HITRA?

General

1. Explain the process you apply to determine when a Z PTW needs to be prepared and issued?
2. What's the purpose of preparing this PTW?
3. Please provide an example of where you have elected not to use a PTW for a specific task or job and the reason why?
4. How do you allocate time to prepare the PTW process, including paperwork?
5. How effective do you believe the "external content" of your PTW training pathway is?
6. How effective are the internal learning pathways for Z's PTW System (Z School)?
7. Who do you go to for support when a PTW process requirement is unclear, provide an example?
8. What do you believe the function of "assurance" is in terms of Z's PTW System?
9. Which parts of the PTW system could be improved and how/why?
10. Key Characteristics
 - a. Confidence in understanding the appropriate application of Z's PTWS?
 - b. Does the PI have the appropriate training elements for the nature of the permit?
 - c. How would you rate the PI process understanding and beliefs with regards to the PTWS as a primary control of works process?

Toolbox

1. We use this term a lot, but what is your understanding of a toolbox?
2. Explain how you run a toolbox?
3. What type of feedback do you get when you conduct a toolbox?
4. Explain 2 or 3 key reasons for conducting a toolbox?
5. How do you decide who to invite to the toolbox?
6. Can you explain SIMOPS in relation to your leadership of work activity?
7. What would you do to improve the toolbox process?
8. Key Characteristics
 - a. Does the PI engage directly with permit holders?
 - b. Are records of the toolbox fit for purpose?
 - c. Overall, does the PI drive the toolbox process to ensure outcome requirements are met?

Continuous Improvement

1. Explain how you interact with the PI-to-PI assurance process? Provide an example.
2. What type of insights do you generate when reviewing another PI permit? Please give a couple of examples
3. How do you feedback into the business any improvement ideas you may have?
4. Please detail an example of SPI to PI assurance, how was it carried out, and can you describe the value?
5. If you could recommend one area for improvement across any element of Z's PTW System today, what would that be and why?
6. Key Characteristics



- a. Is the PI-to-PI assurance process fully evident for this PI?
- b. What is the level of engagement in the PI-to-PI review for this PI?

Documentation

1. How do you display your PTW documents on site and how do you ensure all stakeholders are aware of the work in progress and related hazards? Please provide an example.
2. Describe what you do with the PTW documentation on completion of all works? Please provide an example and demonstrate to the auditor how documents are retained, where and why?
3. Have you any suggestions for improvement for the Z PTWS documentation?
4. Key Characteristics
 - a. How would you rate the post project documentation and filing?
 - b. Rate the PI confidence in completing the documentation?
 - c. Rate the PI completion of documentation, empty fields, signatures, sign-off?

Senior Permit Issuer

1. Outline two examples of SPI signoffs for Z PI's in the last 12 months.
2. For one of these, outline the sign-off process and take me through the documentation and supporting evidence.
3. Are there any areas of concern arising from your PI assessments? Outline these.
4. Explain the process used to engage with other SPI's on system conformance and performance?
5. Explain the continuous improvement process and how you engage with this?
6. Provide your insights into the level of consistency in the application of Z's PTW system across the business.
7. How would you describe the value of the SPI to PI assessments and why? Examples?

Assessors Actions and Insights

1. Overall engagement, willingness to engage and attitudes to PTW process
2. Review Key Characteristics and score from 0 – 10 to give an overall performance rating, against the two focus areas, for compliance and understanding
3. Supporting commentary for the rating
4. Actions resulting from finding

