Wellsite Permit to Work

Revision 2

Permit Holder & Work Party Training
Session Format

Presentation is in 3 Parts

Then a theory assessment
Part 1

- Acknowledgments
- Purpose
- Scope
- Definitions
- Responsibilities
- Objectives of the Permit System
Acknowledgments

What companies developed Revision 2 of the Wellsite Permit to Work?
Some of the companies who assisted in the development of Wellsite Permit to Work System Rev 2

- Santos Ltd
- Origin Energy
- Century Resources Ltd
- Ensign
- Eastern Well Service
- Expro
- Diversified
- Arc Energy
- Beach
- Mitchell
- Expertest
Purpose

What is the purpose of the Wellsite Permit to Work System?
The purpose is to

• Plan and control work on Well Sites
• Assist in carrying out work in accordance with safe working practices
Scope of the System

When does the Wellsite Permit to Work System apply?
Wellsite Permit to Work applies when work is carried out by the Operating Company and associated Wellsite Contractors

- On Australian Onshore Wellsites once handed over by the Operating Company’s Production group
- Any other associated activities conducted by the Wellsite Contractor
Scope of the System

When does this system not apply?
This system does **NOT** apply when

- The Operating Company’s Permit to Work Procedures are applicable and/or takes precedence.

- Seismic operations are conducted that do not impact on other operations or installations.

- When construction activities take place in a fenced off area separate from producing plant and free of hydrocarbons.
Definitions

**Wellsite Permit to Work**
Sets out the work to be done, the precautions to be taken and specifies all work conditions

**Wellsite Permit Authority**
The person authorized to issue Wellsite Permits to Work

**Operator Representative**
Represents the Operating Company responsible for the Wellsite work

**Wellsite Permit Holder**
The person who receives the Wellsite Permit to Work

**Wellsite Work Party**
The people whose work is covered by the Wellsite Permit to Work
Responsibilities

- Permit Authority
- Operator Representative
- Permit Holder
- Work Party Members
What are the responsibilities of a Permit Authority?
Permit Authority

• Issues permits
• Shares responsibility with the Permit Holder for defining scope of work in Section A
• Defines in Section B the Precautions to be completed for the work to be performed
• Defines in Section C the ongoing Work Conditions with the Permit Holder
Permit Authority

- Ensure the Permit Holder and the Work Party understand the Permit to Work Conditions
- Monitor the work carried out by the Work Party
- Complete Section D to issue and close out Permits
What are the responsibilities of an Operator Representative?
Operator Representative

- Must ensure that all responsibilities of the Permit Authority and Permit Holder have been satisfied and the Permit to Work activities do not impinge on other activities
- Must be satisfied that Wellsite contractors have appropriate procedures, JHA’s conducted and personnel appropriately trained
- Where an Operator Representative has not been assigned to a Wellsite activity, the Permit Authority must be briefed by the Operating Company’s Supervisor on requirements pertaining to Wellsite Permits to Work
What are the responsibilities of a Permit Holder?
Permit Holder

• Shares responsibility with the Permit Authority for completing the scope of work in Section A of the Permit
• Ensures the Work Party understands all the Permit Precautions and Work Conditions
• With the Permit Authority completes Section D to accept and close out Permits
• Satisfy themselves that all Work Precautions are carried out in Section B of the Permit
What are the responsibilities of a Work Party Member?
Work Party Member

- Must understand the scope and conditions of the Permit to Work, sign that they understand and then abide by them

- If in doubt, stop work and ask
Objectives of the System

What are the objectives of the System?
Objectives of the System

- People, environment, equipment & product are protected
- Safe working practices are followed whilst work is being carried out
- The work site is inspected and necessary precautions have been considered and implemented before work commences
- Work is only performed on specified equipment
- Location of people and type of work being carried out is always known should an emergency occur
- Persons carrying out work understand the conditions under which work may be carried out
Objectives of the System

- Equipment to be worked on has been correctly prepared for the work to be carried out
- Correct protective measures are available and are being used
- Work being done is carefully monitored
- The work site is left in a clean and safe condition upon completion of the work
- The details of non-completed work are documented and communicated to the Permit Authority and Operator Representative as appropriate
- Equipment left unserviceable is correctly tagged and identified to incoming shifts
End of Part 1
Part 2

- Number of Permit Authorities for a Wellsite
- Permit Holder Qualifications
- Different categories of Permits
- Work not requiring a Permit
Issuing Permits

For each Wellsite, how many Permit Authorities are responsible for work activities on that site?
There is only **one** Permit Authority for each Wellsite
Permit Holder Qualifications

What must you do to qualify as a Permit Holder?
Permit Holder Qualifications

- Attend both Operating Company and contractor safety induction sessions
- Participate in the Permit Holder and Work Party Training Session
- Demonstrate an understanding of the Permit Holder responsibilities
- Demonstrate an understanding of site specific regulations
- Demonstrate an understanding of the JHA system
Permits are issued for

- Cold Work
- Hot Work
- Pressure Systems Work
- Electrical Work
- Explosive/Radioactive Work
- Confined Space Entry
- Work At Heights
Cold Work Permit

When would a Cold Work Permit be required?
Cold Work Permits

Are required for work that is non-standard or non-routine and is not covered by any other Wellsite Permit Category
What is non-standard or non-routine? It is work that has a health and safely risk and is not regularly performed. Examples of such work are

- One off activity that has the potential to injure personnel or damage equipment
- Any activity that personnel are not familiar with
- Where a JHA does not exist or has not been performed
- Any deviation or modification to existing procedures or a JHA
And further examples of non-standard, non routine work include

- Isolation, override or disablement of standard safety systems
- Non-standard operations or maintenance of equipment or plant
- Any work at heights, not currently covered by an approved SOP
And Finally

- Scaffold erection on a Wellsite or camp site
- Work in unguarded/unprotected areas
- Work with chemicals for which personnel are unfamiliar
- Inspection or non-destructive testing of equipment or plant during normal operations
The requirement for any Cold Work Permit may be superseded by the use of an Approved Standard Operating Procedure or a JHA.
Excavations

I need to dig a hole, or pound in a stake, who do I see?
See the Permit Authority who will decide if a Permit is required
Hot Work Permits

When is a Hot Work Permit required?
Hot Work Permits

Is required for work, within 15 metres of a well, which could generate an ignition source, such as fire, naked flame, heat or spark.
Examples of Hot Work

- Welding, soldering
- Burning, flame cutting, flame heating
- Grinding
- Use of electrical hand tools, power driven cutters, or running internal combustion engines, such as found in forklifts and portable pumps with diesel or petrol engines that are not fitted with approved devices for use on a wellsire
- Lighting fires of any kind
Examples of Hot Work

- Use of non-intrinsically safe electrical devices
- Use of cameras containing batteries
- Transfer of diesel or crude oil to or from road tankers
- Potential to generate static electricity
Pressure System Work Permit

When is a Pressure System Work Permit required?
Pressure System Work Permits

Is required for any work involving equipment which is usually under pressure, may be under pressure, or any work involving pressurized operations
Includes

- Any pressure tests
- Leak off and formation integrity tests
- Work on an accumulator unit and any associated pressure lines or pressure equipment
- Work on blow out preventers and any associated pressure lines or pressure equipment
Further includes

- Fracture or Acid stimulations
- Chemical injection into wellheads for inhibition
- Work on pumps and any associated pressure lines
- Work on any hydraulic systems
- Work on any air pressure systems
Electrical Work Permit

When is an Electrical Work Permit required?
Electrical Work Permits

Is required for work on any electrical circuit or equipment, and MUST be carried out by persons holding Formal Electrical Qualifications.
Includes

- Work on generators
- Work on electrical panels
- Work on SCR units (Silicon Controlled Rectifiers used to power some drilling rigs)
- Work on electric monitors
- Work on electrical circuits which are not in electrical sub-stations, and includes repair, maintenance or connection
Explosive/Radioactive Permit

When is an Explosive/Radioactive Work Permit required?
Explosive/Radioactive Permits

Is required whenever explosives or radioactive substances are to be used or handled

For example

- Perforating
- Radioactive logging
- X-ray equipment
- Some non-destructive testing
Confined Space Entry Permit

When is a Confined Space Entry Permit required?
Confined Space Entry Permit

‘Is required whenever a person’s upper body or head enters into a confined space’.

A Confined Space is:

• Is not intended or designed primarily as a place of work
• May have restricted means of entry and exit
• May have inadequate ventilation and/or atmosphere which is either contaminated or oxygen deficient
• Is at atmospheric pressure during occupancy
Confined Space Entry Permit

Examples include some frac and mudtanks, well cellars, flare pits, trenches and turkey’s nests
Confined Spaces Form
Work not requiring a Permit

Can work be performed without a Permit?
Permits are not required for:

- Routine operations (work that is regularly performed and has no particular health or safety risk)
- Minor maintenance work carried out by trained competent personnel as agreed with the Permit Authority provided an appropriate Risk Hazard Analysis (such as JHA or Stepback) has been performed
- Initiating of an Emergency Response and only as directed by the Permit Authority or Operator Representative
Permits are not required for (Continued)

• Hot work carried out in an approved maintenance workshop
• Cold or hot work carried out in camp area provided that an appropriate JHA or Stepback has been performed
• Routine rig up or rig down of third party equipment if approved procedures are followed and not specifically covered by some other permit
• Surveillance activities performed at a wellsite once the well has been handed over via an approved well handover procedure
Part 3

- Duration of a Permit
- Steps involved when issuing a Permit
- The Wellsite Permit
Permit Duration

How long can a Permit last?
Permits remain valid until

- End of a Work Party’s shift
- The nominated expiry time on the Permit
- Work is suspended, or delayed due to shift change
- The Permit Holder is no longer available
- The sounding of an emergency alarm
- Cancelled by the Permit Authority
- Cancelled by the Operator Representative
- Work is completed
Permit Issue

When I require a Permit, how do I go about getting one?
Permit Issue

• Firstly, notify the Permit Authority
• Secondly, a site inspection and safety briefing may be required
• Thirdly, the Permit is prepared
Flow Chart/Decision Tree

Acrobat Document
**Wellsite Permit To Work Form**

![Wellsite Permit To Work Form](image)
## Section A - Scope

### Categories of Work

- Cold Work
- Explosive/Radioactive
- Pressure Systems
- Electrical Work
- Hot Work
- Confined Space Entry*
- Working at Height

*The user of a confined spaces entry permit must also use the confined spaces entry supplement.

<table>
<thead>
<tr>
<th>Date of Issue:</th>
<th>Issued to Wellsite Permit Holder (Name):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rig or Equipment Name / Number:</td>
<td>Wellsite Permit Holder Company:</td>
</tr>
<tr>
<td>Wellsite Name or Location:</td>
<td>Specific Work Location on the Wellsite:</td>
</tr>
</tbody>
</table>

**Specific Work Description:**

**Tools/Equipment to be used:**

**Associated Documents (list or attach):**

**Work Precautions Verifier**

(If not Wellsite Permit Authority list name/role/company):

### Work Party Acceptance

I understand the work to be performed, the plant & equipment to be worked on, all work precautions and conditions prescribed for this permit & agree to abide by all work conditions.

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Time</th>
<th>Name</th>
<th>Signature</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
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<td>5</td>
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<tr>
<td>3</td>
<td></td>
<td></td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Section D – Permit Issue/Permit Close Out

## SECTION D – PERMIT ISSUE/PERMIT CLOSEOUT

<table>
<thead>
<tr>
<th></th>
<th>Date:</th>
<th>Time (24hrs):</th>
</tr>
</thead>
<tbody>
<tr>
<td>This permit is active from</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This permit expires at (unless suspended earlier)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Wellsite Permit Holder Acceptance</strong></th>
<th><strong>Wellsite Permit Authority Approval</strong></th>
<th><strong>Operating Company Representative Authorisation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>I have read, understand &amp; will ensure compliance with all the requirements of this permit.</td>
<td>I approve the issuing of this permit for work at the specific work location under the precautions &amp; work conditions listed.</td>
<td>I authorise the issuing of this permit for work at the specific work location under the precautions &amp; work conditions listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name:</th>
<th>Signature:</th>
<th>Name:</th>
<th>Signature:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Wellsite Permit Holder Closeout</strong></th>
<th><strong>Wellsite Permit Authority Closeout</strong></th>
<th><strong>Operating Company Representative Closeout</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>I confirm all persons under my supervision, materials &amp; equipment have been withdrawn.</td>
<td>I confirm this permit is closed &amp; all persons working under this permit, materials &amp; equipment have been removed &amp; the work area made safe.</td>
<td>I confirm this permit is closed &amp; all persons working under this permit, materials &amp; equipment have been removed &amp; the work area made safe.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Work complete?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work complete?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

List details of incomplete work:

<table>
<thead>
<tr>
<th>Time of closeout (24 hrs)</th>
<th>Time of closeout (24 hrs)</th>
<th>Time of closeout (24 hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site cleaned up/work party locks/tags removed?</td>
<td>Site cleaned up/work party locks/tags removed?</td>
<td>Site cleaned up/work party locks/tags removed?</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name:</th>
<th>Signature:</th>
<th>Name:</th>
<th>Signature:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Site cleaned up/work party locks/tags removed?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Signature:</td>
<td>Name:</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section C – Ongoing Work Conditions

<table>
<thead>
<tr>
<th>WORK CONDITIONS – MANDATORY FOR WELLSITE PERMIT HOLDER &amp; ALL WELLSITE WORK PARTY MEMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Continuous gas monitoring during work  ☐ Goggles  ☐ Respirators  ☐ Face shield  ☐ Hearing protection</td>
</tr>
</tbody>
</table>

Other details and conditions:

<table>
<thead>
<tr>
<th>GAS DETECTION &amp; MONITORING RECORD – ONGOING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas tester name</td>
</tr>
<tr>
<td>-----------------</td>
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<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>


**Wellsite Permit To Work (Section B)**

**SECTION B - WORK PRECAUTIONS - CHECKLISTS**

All specified work precautions must be completed before work is commenced.

### GENERAL: All Wellsite Permits

**WORK PRECAUTION CHECKLIST**

- Field power locked out & tagged
- Electrical power locked out & tagged
- Equipment drained/degasified & purged.
- Written procedure to be used (record procedure reference in Associated Documents in Section A)
- Work party members briefed on work to be done.
- Job Hazard Analysis (JHA) to be performed.
- Non-essential personnel cleared from work area
- Gas detection test required prior to work.
- Warning signs posted at work location.
- Work area hinged off to exclude other personnel.
- All facility personnel informed of work to be done.
- Continuous gas monitoring.

### Cold Work Permit

**WORK PRECAUTION CHECKLIST**

- Pre-work survey required.

### Hot Work Permit

**WORK PRECAUTION CHECKLIST**

- Protective screens erected.
- Full spark containment.
- Drains covered.
- Competent Fire Watchers on duty.
- Electric system inspected.
- Area free from combustible materials.
- Fire extinguishers placed in work area.
- Fire hose charged & available.

### Pressure Systems Work Permit

**WORK PRECAUTION CHECKLIST**

- Isolations proved.
- Pressure relief devices in place & tested.
- Pressure lines secured against movement.
- Bleed off lines directed to safe areas.
- Voids checked for trapped pressure.
- Hammer union compatibility verified.
- System of communication established & tested.

### Electrical Work Permit

**WORK PRECAUTION CHECKLIST**

- Capacitors discharged.
- Isolations proved - correct item de-energised.
- Grounding clamps in place.
- Person in charge of electrical work.
- Person in charge of electrical work.
- Continuous gas monitoring.

### Explosive/Radioactive Permit

**WORK PRECAUTION CHECKLIST**

- Storage area designated for explosives & radioactive sources.
- Radiation badges worn & survey meter available.
- Overhead power shutdown/ top drive isolated.
- Welding unit turned off & isolated.
- Hot work permit held.
- Radio silence enforced.
- Perforating safety checklist to be used.

### Working at Height Permit

**WORK PRECAUTION CHECKLIST**

- Inspected & maintained inertia reel required.
- Hand tools secured by lanyards or similar.
- Personnel working at heights trained & competent for working at height.
- Area below the work cleared of all personnel.
- Emergency rescue plan in place.
- Fall prevention / protection equipment in working order & personnel trained to use.

### Confined Space Entry Permit

**WORK PRECAUTION CHECKLIST**

- Work location to be pumped before entry.
- Documented risk assessment completed.
- Confined spaces entry permit attached.
- Training certificate for person entering confined space.
- Stand by person.
- Respirator or SCBA.
- Emergency rescue plan in place.
- Entry way to be secured open.

**SECTION B - WORK PRECAUTIONS - PRESTART GAS DETECTION & MONITORING RECORD**

<table>
<thead>
<tr>
<th>Gas tester name</th>
<th>Initials</th>
<th>Time 24hr</th>
<th>% LEL</th>
<th>CO ppm</th>
<th>H2S ppm</th>
<th>% O2</th>
<th>Other gases</th>
</tr>
</thead>
</table>

**SECTION B - ISOLATION RECORD**

| Description of Isolation | Lock/tag number | Location of Lock/tag | Initial Verified in place | Initial Verified removed |
I need a Fire Watcher for a job and have a person in mind. What must they know?
Fire Watcher

• Must be familiar with the job being done
• Must be alert for any fire outbreak and take immediate action
• Does not allow other work not specified by the Permit to proceed
• Have fire extinguishers/fire hoses ready, and be trained to use them
Work Precautions

What protective measures should I consider before commencing work?
Locks and Danger Tags

I will be putting my hands on to equipment that needs repairing. Can I lock out that equipment and tag it?
Locks and Danger Tags

YES
Gas Testing

I am using continuous gas monitoring and the monitor alarm sounds.

What should I do?
Gas Testing

STOP work immediately
Initiate Emergency Response
Vehicle Entry

I need to drive my vehicle within 15 metres from the wellhead.
Before doing so, who do I need to see?
Vehicle Entry

The Permit Authority
The End