

Wellsite Permit to Work System for Onshore Australia

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Summary of Presentation

- Basics of permits to work
- Background to the Wellsite Permit to Work System
- How the Wellsite System works
- Importance of the Steering Committee
- Why it works well, some stumbling areas
- Future opportunities



Permit to Work Systems



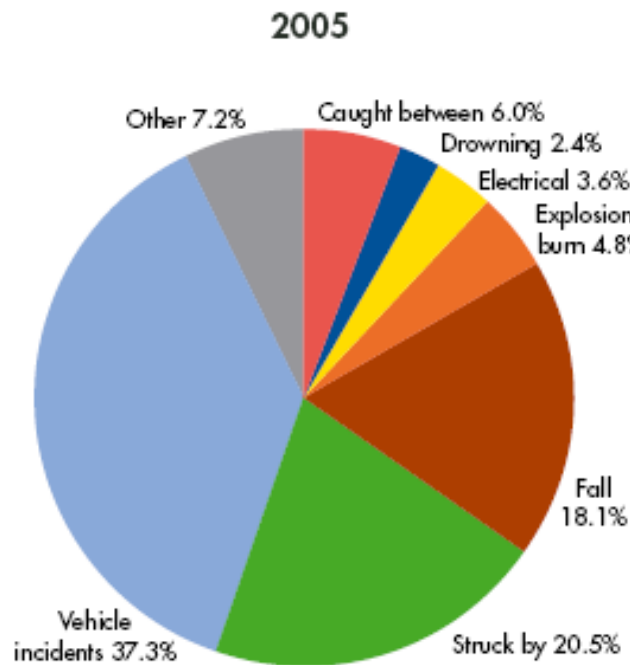
Why We Need Permit Systems...

- 84 oilfield deaths in 2005
- 47 while performing "permit" activities

2.4 Fatality causes

	Incidents	Fatalities (not 3 rd party)
Air transport	0	0
Caught between	5	5
Drowning	2	2
Electrical	3	3
Explosion/burn	3	4
Fall	15	15
Other	2	6
Struck by	17	17
Vehicle incident	26	31
Unknown	1	1
Total	74	84

Fatality causes
% fatalities associated with each reporting category (excluding 'unknown')



Permit to Work Systems

- A work planning & scheduling tool to assist in safe operations
- Standardised pre-job precaution checklists to identify expected hazards before starting
- Prompts for procedures and job hazard analyses
- Ensure only competent people perform work
- Approval & authorisation requirements for issuing and closing out permits
- Documents everything simply



What a Permit System is Not

- A set of work procedures
- A guarantee of safe work practices
- Excuse for sloppy work
- A substitute for thinking sensibly
- Make experts of everyone
- Something to establish who is “the boss”
- To transfer liability to another party



Background

- Drilling contractors in Australia had a consistent permit system in 1996
- In 2000 work was started to formalise a system to be used for rigs and non-rig work
- Revision 1 Wellsite System released 2001
- Staged rollout rigs & non-rigs 2002



Features of the Wellsite System

- Focussed on wellsite work, not an oil & gas plant or fixed facility
- Owned by the industry
- Operated by and for contractor personnel
- Operating company need not get involved
- Uniform, standard onshore system
- Rig and non-rig operations
- Can be used in yards and warehouses



Wellsite Permit Types

- Cold Work
- Electrical Work
- Pressure Systems
- Confined Space
- Hot Work
- Explosives
/ Radioactive
- Working at Heights



Form: to Record & Manage the Process

Wellsite Permit to Work - Rev 2

Permit No 2



SECTION A - SCOPE					
CATEGORIES OF WORK (more than one work type may be performed using one form, if appropriate)					
<input type="checkbox"/> Cold Work <input type="checkbox"/> Explosive/Radioactive <input type="checkbox"/> Pressure Systems <input type="checkbox"/> Electrical Work <input type="checkbox"/> Hot Work <input type="checkbox"/> Confined Space Entry* <input type="checkbox"/> Working at Height <small>*The user of a confined space entry permit must also use the confined space entry permit supplement.</small>					
Date of Issue:		Issued to Wellsite Permit Holder (Name):			
Rig or Equipment Name / Number:		Wellsite Permit Holder Company:			
Wellsite Name or Location:		Specific Work Location on the Wellsite:			
Specific Work Description to be done:					
Tools/Equipment to be used:					
Associated Documents (list or attach):		Work Precautions Verifier (Name & company) (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 the requirements of this permit.					
Name	Signature	Time	Name	Signature	Time
1		4			
2		5			
3		6			
SECTION D - PERMIT ISSUE/PERMIT CLOSEOUT					
This permit is active from		Date:		Time (24hrs):	
This permit expires at (unless suspended earlier)		Date:		Time (24hrs):	
Wellsite Permit Holder Acceptance I have read, understand & will ensure compliance with all the requirements of this permit.		Wellsite Permit Authority Approval I approve the issuing of this permit for work at the specific work location under the precautions & work conditions listed.		Operating Company Representative Authorisation I authorise the issuing of this permit for work at the specific work location under the precautions & work conditions listed.	
Name:		Name:		Name:	
Signature:		Signature:		Signature:	
Wellsite Permit Holder Closeout I confirm all persons under my supervision, materials & equipment have been withdrawn.		Wellsite Permit Authority Closeout I confirm this permit is closed & all persons working under this permit, materials & equipment have been removed & the work area made safe.		Operating Company Representative Closeout I confirm this permit is closed & all persons working under this permit, materials & equipment have been removed & the work area made safe.	
Work complete? <input type="checkbox"/> Yes <input type="checkbox"/> No		Work complete? <input type="checkbox"/> Yes <input type="checkbox"/> No		Work complete? <input type="checkbox"/> Yes <input type="checkbox"/> No	
List details of incomplete work:					
Time of closeout (24 hrs)		Time of closeout (24 hrs)		Time of closeout (24 hrs)	
Site cleaned up/locks/tags removed? <input type="checkbox"/> Yes <input type="checkbox"/> No		Site cleaned up/locks/tags removed? <input type="checkbox"/> Yes <input type="checkbox"/> No		Site cleaned up/locks/tags removed? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Name:		Name:		Name:	
Signature:		Signature:		Signature:	

SECTION B - WORK PRECAUTIONS - CHECKLISTS			
All specified work precautions must be completed before work is commenced			
GENERAL: All WellSite Permits			
WORK PRECAUTION CHECKLIST	Required Yes/No	Initial by Verifier	
Fluid power locked out & tagged			
Mechanical power locked out & tagged			
Electrical power locked out & tagged			
Equipment drained/depresurised & 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 (list JHA in Associated Documents in Section A)			
Non-essential personnel cleared from work area			
Gas detection test required prior to work			
Warning signs posted at work location			
Work area bunted off to exclude other personnel			
All wellsite personnel informed of work to be done			
Continuous gas monitoring			
Cold Work Permit			
WORK PRECAUTION CHECKLIST	Required Yes/No	Initial by Verifier	
Excavation survey required			
Hot Work Permit			
WORK PRECAUTION CHECKLIST	Required Yes/No	Initial by Verifier	
Protective screens erected			
Full spark containment			
Drains covered			
Competent Fire Watcher on duty (name recorded in work party)			
Area free from combustible material			
Fire extinguishers placed in work area			
Fire hose charged & available			
Pressure Systems Work Permit			
WORK PRECAUTION CHECKLIST	Required Yes/No	Initial by Verifier	
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	Required Yes/No	Initial by Verifier	
Capacitors discharged			
Isolations proved - correct item de-energised			
Residual current device (RCD) in place			
Grounding of equipment completed			
Personnel certification available / sighted			
Explosive/Radioactive Permit			
WORK PRECAUTION CHECKLIST	Required Yes/No	Initial by Verifier	
Storage area designated for explosives & radioactive sources			
Radiation badges worn & survey meter available			
Grounding clamps in place			
Overhead power shutdown/ top drive isolated			
Welding unit turned off & isolated			
Cathodic protection turned off & isolated			
Shot fires / blasters ticket sighted			
Radio silence enforced			
Perforating safety checklist to be used			
Working at Height Permit			
WORK PRECAUTION CHECKLIST	Required Yes/No	Initial by Verifier	
Inspected & maintained inertia reel required			
Hand tools secured by lanyards or similar			
Personnel working at height trained & competent for working at height			
Area below the work cleared of all personnel			
Emergency rescue plan in place & recovery equipment available			
Fall prevention / protection equipment in working order & personnel trained to use			
Confined Space Entry Permit			
WORK PRECAUTION CHECKLIST	Required Yes/No	Initial by Verifier	
Work location to be purged before entry			
Documented risk assessment completed	YES		
Confined space entry permit attached	YES		
Training certificate for person entering confined space	YES		
Stand by person			
Respirator or self contained breathing apparatus			
Emergency rescue plan in place & recovery equipment available	YES		
Entry way to be secured open			
SECTION B - WORK PRECAUTIONS - PRESTART GAS DETECTION & MONITORING RECORD			
Gas tester name	Initials	Time 24hr	% LEL <input type="checkbox"/> CO ppm <input type="checkbox"/> H ₂ S ppm <input type="checkbox"/> % O ₂ <input type="checkbox"/> Other gases
SECTION B - ISOLATION RECORD			
Description of isolation	Lock/Tag number	Location of Lock/Tag	Initial Verified in place / Initial Verified removed
SECTION C - ONGOING WORK CONDITIONS			
WORK CONDITIONS - MANDATORY FOR WELLSITE PERMIT HOLDER & ALL WELLSITE WORK PARTY MEMBERS			
<input type="checkbox"/> Continuous gas monitoring during work <input type="checkbox"/> Goggles <input type="checkbox"/> Respirators <input type="checkbox"/> Face shield <input type="checkbox"/> Hearing protection Other details and conditions:			
GAS DETECTION & MONITORING RECORD - ONGOING			
Gas tester name	Initials	Time 24hr	% LEL <input type="checkbox"/> CO ppm <input type="checkbox"/> H ₂ S ppm <input type="checkbox"/> % O ₂ <input type="checkbox"/> Other gases



Training & Competencies

- Critical to good System operation
- Permit Holder training package provided by Steering Committee
- Competency-based or not: your choice
 - PMAPER200B Work in accordance with a permit
 - PMAPER300C Issuing work permits
- Users can conduct their own training
- Commercial providers can also supply



Training & Competencies

- Standard Cards to indicate training / competency in the Wellsite Permit System

Wellsite Permit Authority Certificate of Competency Wellsite Permit to Work System Rev 2

This is to certify that:
has demonstrated competency to issue the following work permits:

- | | |
|--|--|
| <input type="checkbox"/> Cold Work | <input type="checkbox"/> Explosive/Radioactive |
| <input type="checkbox"/> Hot Work | <input type="checkbox"/> Confined Space Entry |
| <input type="checkbox"/> Electrical Work | <input type="checkbox"/> Working at Heights |
| <input type="checkbox"/> Pressure Work | |

Permit Holder and Work Party Certificate of Competency Wellsite Permit to Work System Rev 2

Name:
has demonstrated competency in working in accordance with an issued permit.

- | | |
|--|--|
| <input type="checkbox"/> Cold Work | <input type="checkbox"/> Explosive/Radioactive |
| <input type="checkbox"/> Hot Work | <input type="checkbox"/> Confined Space Entry |
| <input type="checkbox"/> Electrical Work | <input type="checkbox"/> Working at Heights |
| <input type="checkbox"/> Pressure Work | |

Issue date 3 year duration

Issued by:

Name

Signature:

Issue date

This certificate is only valid for Wellsite Permit to Work System Rev 2

Training Centre

Assessor's Name:

Assessor's Signature:

Issue date

This certificate is only valid for Wellsite Permit to Work System Rev 2

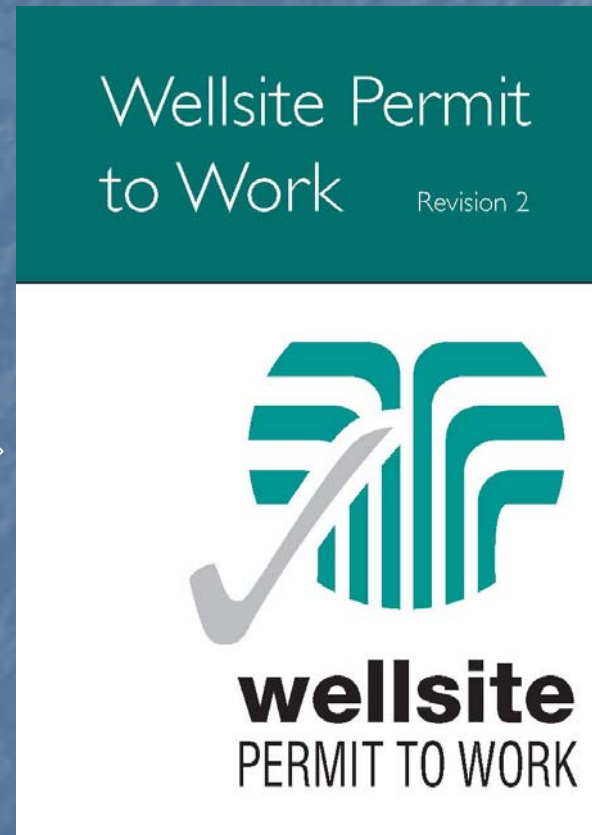
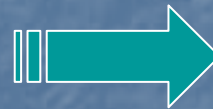


Wellsite Permit Steering Committee

- Made up of industry representatives of:
 - Operating Companies
 - Rig Contractors
 - Service Companies
 - Training Providers
 - Regulators
- Non-aligned, not-for-profit, industry-based
- Manage the Wellsite Permit to Work System



Moving from Rev 1 to Rev 2



Things that have caused concern...

- When do you issue a Cold Work Permit?
- Compliance not mandated by legislation
- Allocating System rollout costs
- Why move to Rev 2 (when Rev 1 so good?)
- System flexibility can decrease discipline
- Contractor-to-contractor liabilities



Liabilities

- What is the liability of the Wellsite Permit Authority in issuing Wellsite Permits to personnel from other contractor companies?
 - New Handbook provision addresses this, states no liability for damages if System followed
 - Use reasonable care for the foreseeable risks
 - Take a careful approach, take reasonable steps
 - Specific guidance as provided in a Permit should lessen liability, not increase it



Wellsite Website

www.wellsite.org.au

- Still in early stages
- Currently used for registering interest in the Wellsite Permit to Work System, and providing an overview of the System
- Frequently Asked Questions will of course grow as questions are asked more frequently
- In the future, the site should provide all System materials and training aids



Future Opportunities

- Even more focussed on wellsite work?
 - Could simplify for specific applications / areas
- International editions
 - Local legislation & standards
- Digital System
 - Less effective communication, misunderstandings
 - Combination of digital & hardcopy
 - Use of laptops & PDA's
- 3-D Visualisation Technology

