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PERMIT TO WORK – (PTW) DESIGN & IMPLEMENTATION FRAMEWORK

A PRACTICAL GUIDE FOR SAFE, CONTROLLED WORK WITHIN UK INDUSTRIAL OPERATIONS.

OPERATIONAL ASSURANCE GROUP
SPECIALISTS IN SAFE SYSTEMS OF WORK & INDUSTRIAL RISK CONTROL

Permit to Work (PTW) Design & Implementation

A Practical Guide for Safe, Controlled Work in UK Industrial Operations

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1. Executive Summary

Permit to Work (PTW) systems are a critical component of risk control in high-hazard industries. When designed and implemented effectively, they provide a **structured framework for controlling hazardous work**. When poorly applied, they become administrative burdens that create **false assurance and increased risk**.

This white paper provides a **practical, operationally grounded approach** to PTW design and implementation, aligned with the mission of Operational Assurance Group:

"To protect people and businesses by delivering practical, audit-ready safe systems of work and risk control solutions that enable confident operational delivery."

The focus is clear:

- Use PTW **where it adds control—not bureaucracy**
- Ensure systems are **understood, applied, and verified in practice**
- Design processes that are **robust, scalable, and audit-ready**

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2. What is a Permit to Work System?

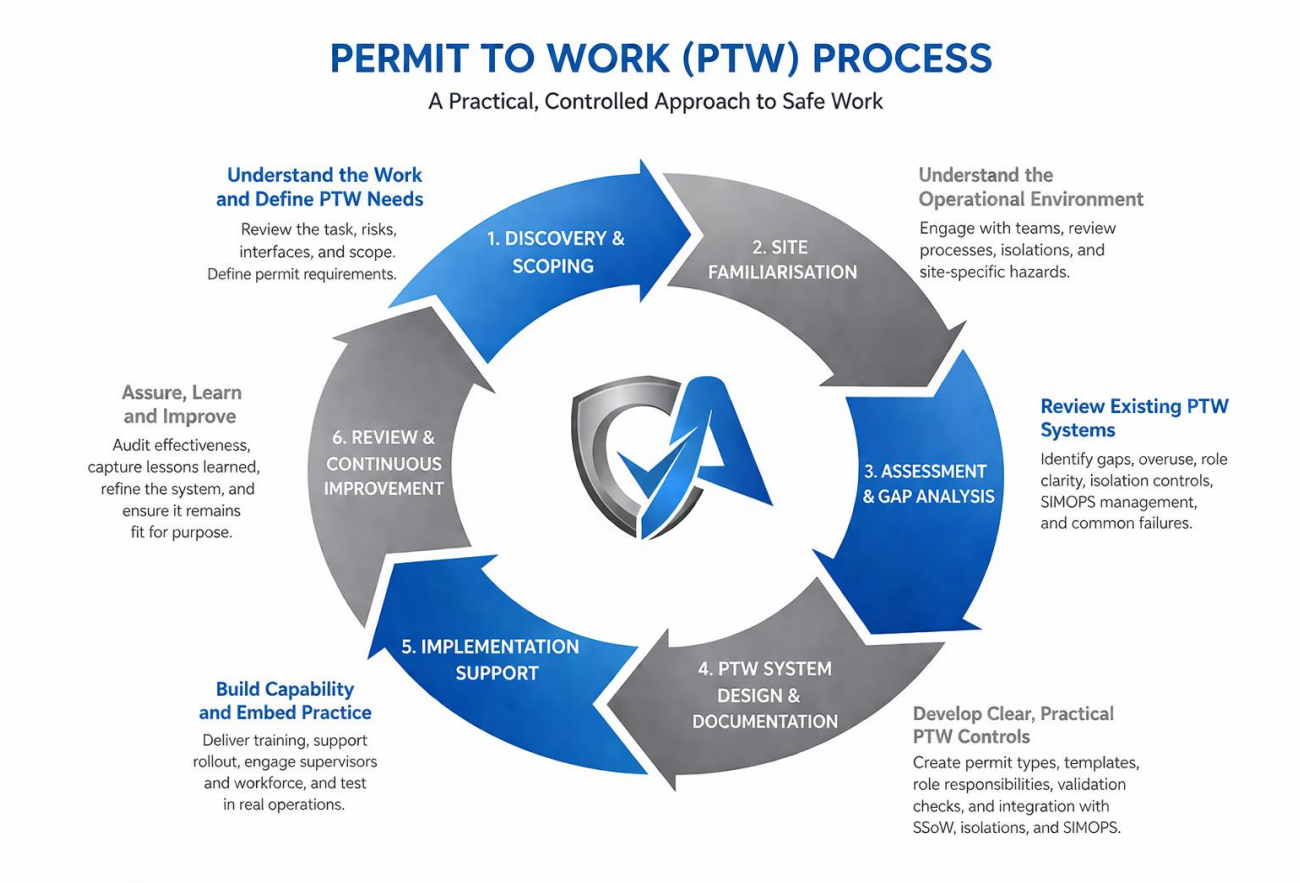
A PTW system is a **formal, controlled process** used to:

- Authorise high-risk work
- Ensure hazards are identified and controlled
- Coordinate activities across teams and interfaces
- Provide **traceability and accountability**

Guidance is primarily provided by:

- Health and Safety Executive (HSE)
- HSG250 – *Guidance on Permit-to-Work Systems*
- Health and Safety at Work etc. Act 1974

- Management of Health and Safety at Work Regulations 1999



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3. When is a PTW Actually Required? (Avoiding Overuse)

3.1 Appropriate Use of PTW

A PTW should be used where:

- Work is **non-routine**
- Hazards are **high consequence**
- Multiple controls or isolations are required
- There are **interfaces between teams or systems**
- There is potential for **serious harm** if controls fail

Typical examples:

- Hot work in hazardous areas
- Confined space entry
- Electrical isolation and maintenance
- Breaking containment on live systems

3.2 When a PTW is NOT Required

Overuse of PTW systems creates:

- Administrative burden
- Reduced attention to critical risks
- "Tick-box" behaviour

PTW is generally **not required** where:

- Work is **routine and well-controlled**
- Risks are **low and stable**
- Standard operating procedures (SOPs) are sufficient
- No significant interaction with other activities

3.3 Principle: Control vs Complexity

If a permit does not add meaningful control, it should not exist.

This aligns with your principle of **Compliance Without Complication**.

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4. Core Permit Types

A well-designed PTW system includes clearly defined permit categories:

4.1 General Permit

- Covers medium-risk, non-routine work

- Acts as a baseline control framework

4.2 Hot Work Permit

- Activities involving ignition sources:
    - Welding
    - Grinding
    - Cutting

Controls include:

- Fire watch
- Gas testing
- Removal of combustibles

4.3 Confined Space Permit

- Entry into enclosed environments with:
    - Limited access/egress
    - Potential hazardous atmospheres

Aligned with:

- Confined Spaces Regulations 1997

4.4 Electrical Permit

- Work on or near electrical systems

Aligned with:

- Electricity at Work Regulations 1989

4.5 Breaking Containment Permit

- Opening systems containing:
    - Chemicals

- Gases
- Pressurised substances

Critical in chemical and petrochemical sectors.

4.6 Additional Specialist Permits (as required)

- Working at height
- Excavation
- Lifting operations

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5. Interface with SIMOPS and Isolations

5.1 SIMOPS (Simultaneous Operations)

PTW systems **must** manage:

- Conflicting activities
- Shared risk environments
- Cross-team dependencies

Effective control includes:

- Central coordination
- Visibility of all active permits
- Defined area authority oversight

5.2 Isolation Management

PTW **must** integrate with:

- Mechanical isolations
- Electrical isolations
- Process isolations

Key principles:

- Isolation is verified **before permit issue**

- Isolation status is **traceable and documented**
- Reinstatement is controlled and authorised

5.3 Critical Insight

A PTW does not control risk on its own—controls such as isolations do.

The permit ensures those controls are:

- Identified
- Implemented
- Verified

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6. Roles and Responsibilities

Clarity in roles is essential to prevent failure.

6.1 Permit Issuer

- Typically a supervisor or authorised person
- Responsibilities:
    - Verify controls are in place
    - Ensure risk assessment is suitable
    - Confirm work conditions are safe

6.2 Permit Acceptor (Performer)

- Person or team carrying out the work
- Responsibilities:
    - Understand the permit and controls
    - Follow specified conditions
    - Stop work if conditions change

6.3 Area Authority

- Responsible for the operational area

Responsibilities:

- Authorise work within their area
- Ensure coordination with other activities
- Maintain oversight of SIMOPS

6.4 Supporting Roles

- Isolation authority
- Gas tester
- Safety advisor

6.5 Principle

Accountability **must** be clear, visible, and understood—not assumed.

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7. Controlled PTW Systems: Why They Matter

A **controlled PTW system** ensures:

- Standardisation
- Traceability
- Accountability
- Auditability

7.1 Characteristics of Controlled Systems

- Unique permit numbering
- Defined approval hierarchy
- Formal issue, acceptance, and closure process

- Central register of active permits
- Clear validity periods

7.2 Paper vs Digital Systems

Paper Systems

- Simple, accessible
- Risk of loss, duplication, poor visibility

Digital Systems

- Real-time tracking
- Improved SIMOPS management
- Audit trail and data insights

7.3 Alignment with Your Principles

- **Audit-Ready by Design** → Traceable and structured systems
- **Built for the Real World** → Usable under operational pressures
- **Clear Communication** → Easy to understand and apply

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8. Common Failure Points in PTW Systems

8.1 Over-Permitting

- Too many permits dilute focus
- Leads to complacency

8.2 Poor Risk Assessment

- Generic or copied content
- Failure to identify site-specific hazards

8.3 Lack of Verification

- Controls assumed, not checked
- “Sign and go” culture

8.4 Weak Role Clarity

- Issuers not competent
- Acceptors not engaged
- Area authority not actively coordinating

8.5 Breakdown in SIMOPS Control

- Conflicting work activities
- Lack of central visibility

8.6 Isolation Failures

- Incorrect or incomplete isolations
- No physical verification
- Poor handover between teams

8.7 Paper Compliance

- Permits completed retrospectively
- Signatures without understanding
- Perfect paperwork, poor site conditions

8.8 Poor Close-Out

- Permits left open
- No confirmation of safe reinstatement

9. Designing an Effective PTW System (Operational Assurance Group Approach)

1. Discovery & Scoping

- Identify risk profile and operational needs
- Define when PTW is required

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2. Site Familiarisation

- Understand workflows, constraints, and hazards
- Engage with frontline teams

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3. Assessment & Gap Analysis

- Review existing PTW systems
- Identify:
    - Overuse
    - Gaps in control
    - Complexity issues

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4. System Design & Documentation

- Develop:
    - Clear permit categories
    - Simple, structured templates
    - Defined roles and workflows

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5. Implementation Support

- Training and briefings
- Supervisor engagement
- Real-world testing

6. Review & Continuous Improvement

- Audit effectiveness
- Capture lessons learned
- Refine system over time

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10. Integration with SSoW and Risk Management

PTW systems should not operate in isolation.

They must align with:

- Risk assessments
- Method statements (SSoW)
- Isolation procedures
- Emergency arrangements

Key Principle

The permit is the control framework—not the control itself.

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11. Delivering Practical, Audit-Ready PTW Systems

An effective PTW system is:

- **Targeted** – Used only where necessary
- **Clear** – Easily understood by all roles
- **Controlled** – Structured and traceable
- **Integrated** – Linked to isolations and SSoW
- **Verified** – Applied in practice, not just on paper

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12. Conclusion

Permit to Work systems are most effective when they are:

- **Focused on real risk**
- **Simple to apply**
- **Actively managed on site**

Organisations that succeed:

- Avoid over-complication
- Prioritise verification over documentation
- Treat PTW as a **live control system**, not a form

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13. Final Thought

A permit alone, DOES NOT make work safe—people applying the right controls DOES.

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14. Contact Us

Operational Assurance Group Specialist Consultancy in Safe Systems of Work & Industrial Risk Control

For further information or support, please get in touch.

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