M&C-M Procedure

PRO-4.5-0001-1-07
Hot Work

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Purpose

Whenever BP conducts construction, maintenance, demolition, remediation and other similar work that are typical of our industry, there is the potential for harm to people and the environment and for damage to equipment.

This procedure sets out a required approach to hot work in accordance with the requirements of GDP 4.5-0001 Control of Work.

Relevant OMS element(s)

OMS 4.5 (Control of Work)

Contents

List of Tables, Diagrams and Figures

To review changes, refer to the 'Version Summary' at the end of this document.

1. Scope

The requirement specified in this procedure applies equally to BP employees, contractors and visitors engaged in the ANZ MC&M business.

Specific sites, areas and activities may have more detailed OMS requirements and where these exist the requirements will be specified in local procedures, safe work instructions, manuals, handbooks, or specific standards.

2. Methodology - Hot Work

2.1. Requirements for Hot Work

Hot work shall not proceed unless the following requirements are met:

1. A site and task specific risk assessment has been conducted.
2. Work is authorised by a Work Permit or Work Clearance, as applicable, in accordance with requirements of WPCG-PRO-01 Work Authorisation (Australia) / PRO4.5-0001-1-01 Permit to Work (New Zealand).
3. Potential fuel sources, flammable and combustible materials have been:

    a) **Identified** Prior to work a work site inspection shall be conducted by those parties authorising the work and those workers performing the work to identify any potential fuel sources, flammable or combustible materials.

    b) **Isolated** Where equipment requires isolation this shall be conducted in accordance with PRO 4.5-0001-1-02 Energy Isolation.

    c) **Removed** from the immediate worksite where the hot work is to take place.

    Any further required actions to remove the presence of fuel sources, flammable or combustible materials shall be recorded on the risk assessment for the task and any associated work permits.
4. Stored energy from associated process systems has been discharged. Equipment required to be de-pressured shall be done so in accordance with PRO-4.5-0001-1-02 Energy Isolation and WPCG-PRO-01 Work Authorisation (Australia) / PRO4.5-0001-1-01 Permit to Work (New Zealand).
5. For Hot Work within Hazardous Areas:

    a) The requirements of WPCG-PRO-01 Work Authorisation (Australia) / PRO4.5-0001-1-01 Permit to Work (New Zealand) shall be followed including the requirements for hot work in hazardous areas.

b) A competent person performs a gas test of the worksite prior to the work commencing. This shall be completed in accordance with WPCG-PRO-01 Work Authorisation (Australia) / PRO4.5-0001-1-01 Permit to Work (New Zealand).

c) The atmosphere must be monitored:

i. Continuous gas monitoring is required for hot work inside hazardous areas.

ii. Persons shall be instructed to stop all hot work, make the area safe and inform the Permit Officer (for work under a Work Permit) or the Work Clearance Issuer (for Work Clearances) immediately in the event the gas detector alarms to indicate LEL ≥ 10% or sooner if specified in the authorisation for the work.

iii. Levels of oxygen (O_2) and flammable substances are kept within safe working ranges to verify that the worksite environment does not exceed pre-defined limits. Hot work shall be stopped if LEL ≥ 10% or O_2 is not between 19.5% and 23.5%, or sooner if specified in the authorisation for the work.

6. For Hot Work outside Hazardous Areas:
   a) A Work Clearance is completed (as a minimum) or a Work Permit is issued, in accordance with WPCG-PRO-01 Work Authorisation (Australia) / PRO4.5-0001-1-01 Permit to Work (New Zealand).
7. Employees understand the risks and control measures specified in the permit. The Work Permit shall be delivered verbally by the Permit Officer to the Permit Receiver prior to job start and all personnel are required to sign on to the Work Permit, to acknowledge that they understand the hazards and shall comply with the conditions of both the work permit and the JSA/SWMS.
8. Grinders greater than 180mm (7inches) shall not be used.
9. The following are in place to respond to potential incidents, based on the task risk assessment:

   a) Emergency response procedures.

   The risk assessment for the task shall consider the emergency response for residual risks identified. If the standard site emergency response plan or procedures do not adequately cover response to risks identified in the risk assessment for the task, then a response shall be developed and rehearsed where required. The emergency response shall be noted on the Work Permit or Work Clearance (as applicable) or on a cross referenced risk assessment or rescue plan for the task. This may be via a reference to the site emergency response plan or procedure if this is appropriate. The required emergency response shall be clearly communicated to those performing the work.

   b) Response personnel.

   Persons shall be competent in any emergency response role that they are to fulfil, e.g., the use of fire extinguishers or first aid.

   c) Equipment.

   i. First aid kits deemed necessary for the task are required to be current, and fire extinguishers tested and tagged in accordance with local regulatory requirements.

ii. As a minimum, 2 x 9kg dry chemical powder fire extinguishers (additional to site fire extinguishers) are required for all hot work that involves the creation of sparks and flames, e.g., oxy cutting, welding, and grinding activities, and where deemed required by the risk assessment for the task. Fire Extinguishers are required to be tested and tagged in accordance with local regulatory requirements.

iii. All specialist rescue equipment on standby shall be tested and certified in accordance with manufacturer's specifications and local regulatory requirements.

3. Roles and Responsibilities

The roles and responsibilities associated with this procedure are listed in the following table.

Table 1: Roles and Responsibilities

Planner	The person planning the hot work is responsible for ensuring that the Permit Receiver or Work Clearance Issuer (as applicable) is communicated the requirements of this procedure as part of the planning process prior to work. This may be discharged through the Permit Officer if the work is conducted under a work permit. The planner role is often not a dedicated role and may be fulfilled by Project Manager, Project Engineer, Regional Maintenance Coordinator, etc.
Permit Officer	WPCG-PRO-01 Work Authorisation (Australia) / PRO4.5-0001-1-01 Permit to Work (New Zealand) documents the responsibilities of the Permit Officer for all Hot Work authorised by a Work Permit.
Permit Receiver	WPCG-PRO-01 Work Authorisation (Australia) / PRO4.5-0001-1-01 Permit to Work (New Zealand) document responsibilities of the Permit Receiver for work permits associated with Hot Work authorised by a Work Permit.
Work Clearance Issuer	WPCG-PRO-01 Work Authorisation (Australia) / PRO4.5-0001-1-01 Permit to Work (New Zealand) documents the responsibilities of the Work Clearance Issuer for all Hot Work authorised by a Work Clearance.
Site Representative	The Site Representative shall be the Site Manager or delegate, or if the site is unmanned it may be the Permit Officer. The Site Representative is responsible for the overall safety of the site. The Site Representative is responsible for communicating to the Permit Officer (work under a Work Permit) or Work Clearance Issuer (work performed with a Work Clearance) the site operations that may affect the lifting operations. They shall also ensure that other parties on site that may be affected by the lifting operations are informed. No works shall be undertaken before the Site Representative countersigns the Work Permit or Work Clearance

4. Terms, Definitions and Abbreviations

Table 2: Terms, Definitions and Abbreviations

Competent Person	An individual who can demonstrate that they have professional or technical training, knowledge, experience, qualifications, and ability to enable them perform duties at the level of responsibility allocated to them.
Hazardous Area	Area in which an explosive atmosphere is present or may be expected to be present in quantities such as to require special precautions for construction, installation, and use of electrical equipment. Hazardous Areas are classified in accordance with AS/NZS 60079.10.1.
Hot work	Work that involves either the use or the creation of a flame, spark or energy discharge that could act as the ignition source for a fire or explosion. Typical examples of hot work include: a) Welding, grinding and oxy cutting; b) Use of battery operated equipment and power tools; c) Abrasive blasting (i.e., sandblasting); d) Power cutting / drilling; e) Crane operations; f) Use of excavators; g) Use of generators and welding machines; h) Use of mobile plant such as elevated work platforms.
JSA	Job Safety Analysis. A risk assessment of the works to be undertaken.
Permit	A formal and detailed agreed document that contains location, time, equipment to be worked on, hazard identification, mitigation / precaution measure(s) used and the names of those authorising the work and performing the work.
Safe Work Method Statements (SWMS)	The SWMS identifies the tasks to be undertaken in the work, the associated hazards and shall identify suitable control measures and the responsible person(s) for their implementation. The SWMS is the formal risk assessment of the works to be permitted. Some organisations or regions (e.g., New Zealand) may instead refer to this as a JSA.
Task	An action or series of actions in support of a piece of work.
WHS	Workplace Health and Safety
Work	An endeavour made up of a number of different tasks.
Work Place Clearance Group (WPCG)	The Work Place Clearance Group (WPCG) is an unincorporated joint venture of which BP Australia is a partner.

5. Verification Processes associate with this Procedure

The key process steps outlined in this procedure shall be included in a Self-Verification Programme.

6. Associated Documents

6.1. 7.1.Documents

The following associated documents:

1. Have been referenced in this procedure.
2. Should be considered in understanding and applying the instructions provided in this procedure.

Table 1: Required References

Document Name	Document No
Group Defined Practice - Control of Work	GDP 4.5-0001
WPCG Work Authorisation	WPCG-PRO-01
Permit to Work	PRO-4.5-0001-1-01
Energy Isolation	PRO-4.5-0001-1-02

6.2. Records

The risk assessment for the task, and any applicable Work Permit or Work Clearance shall be displayed and retained in accordance with local regulatory requirements, and WPCG-PRO-01 Work Authorisation (Australia) / PRO4.5-0001-1-01 Permit to Work (New Zealand).

7. External References

This procedure was prepared with reference to relevant legislation/regulations including but not limited to, relevant Acts, Regulations, Australian/New Zealand Standards and industry codes and best practices.

Details of current legislation/regulations can be provided by the HSSE Team on request.

8. Version Summary

The table below provides a summary of version history of this procedure.

Table 2: Document Version Summary

Version	Prepared by	Description of Change	Date	MoC
1	Adrian Connolly	Document created - Initial release	14 Nov 2014	
2	Adrian Connolly	Minor update to improve formatting and readability only. Addition of consideration for ceasing work during tanker deliveries to Retail sites.	18 May 2016	
3	Adrian Connolly	Updated to incorporate WPCG Minimum Controls Checklist implementation	12 Sep 2017	
4	Adrian Connolly	Update to implement WPCG-PRO-01 Work Authorisation and moved to current template	22 Aug 2018	11449
5	Adrian Connolly	Minor changes to align with new structure post bp reinvent restructure, simplification, clarification of Aus and NZ requirements, and implementation of Life Saving Rules.	8 Aug 2023	11836

9. Disclaimer

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