



BP Group OMS: OMS Sub Element 4.5
Document Application: Air BP Practice

Control of Work

GEN 3

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- (a) 'May' is used where alternatives are equally acceptable.
- (b) 'Should' is used where a provision is preferred.
- (c) 'Shall' is used where a provision is mandatory.

Note that alternative or preferred requirements may be qualified by Air BP in another referenced document.

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1 INTRODUCTION

The OMS sub-element 4.5.Control of Work defines the requirements for the CoW process in BP and therefore Air BP.

Principle: BP entities employ a formal Control of Work process to provide a work environment that will allow tasks to be completed safely and without unplanned loss of containment causing environmental damage.

Group Essentials – Each BP entity shall:

4.5.1 **Implement** and maintain a process to plan work, identify hazards, assess **risk** and put in place **risk reduction measures** to allow work tasks to be completed safely and without unplanned loss of containment causing environmental damage.

The following Group Defined Practice details required business processes relevant to this sub element: Control of Work (GDP 4.5-0001)

2 PURPOSE OF THIS DOCUMENT

The Air BP Control of Work Practice focusses on non-routine activities i.e. those activities which are not undertaken regularly and for which there are no Task based Risk Assessment. The aim is to ensure that all non-routine activities are undertaken in a controlled, lowest possible risk environment.

Routine activities continue to be covered by Air BP Operations Training Manual GEN-555.

3 12 ELEMENTS OF CONTROL OF WORK

Air BP CoW Practice consists of 12 elements which are detailed below, which ensure that there is a formal approach to managing work to the lowest acceptable risk.

3.1 WRITTEN PROCEDURES

This practice specifies the roles, accountabilities and competencies required for both Air BP and third party personnel to perform CoW activities. It sets out principles in preparation, execution, monitoring and learning processes of CoW activities. The flowchart in **Appendix 1** illustrates the complete process used in delivering the Air BP CoW Process.

Where there is a need to develop PU specific CoW Standard instead of this practice the PU Operations Manager shall ensure that the standards are in conformance with this practice through a gap assessment. For example, Performance Units for In-Country alignment may choose to adopt the CoW procedure of another entity.

3.1.1 Applicability

Air BP Facilities and Operations

This practice applies to both workforce and facilities covering the means of safely controlling construction, maintenance, demolition, re-mediation, operating tasks and similar non-routine activities.

For the purpose of this practice, the workforce comprises Air BP employees and every employee of any other company or other legal entity engaged to perform work on Air BP facilities (any site, location, vehicle or vessel that is owned or operated by or for Air BP).

Non Air BP Facilities and Operations

In locations where Air BP does not control the activities, through owning, leasing or operating the facilities the respective Air BP PU Management shall make every effort to

influence and promote adoption of the Practice (or a process of equal integrity) by any company working on behalf of Air BP on non-Air BP facilities.

Influencing the controlling organisation may take one of the following forms:

- Issue of written requests for consideration of all, or part of, the requirements in this Practice.
- Undertaking of a joint review of the requirements of this Practice.
- Demonstration of an equivalent standard of approach to CoW, sourced from another organisation.
- Endeavour to hire contractors with CoW programmes that meet this Practice and encourage those who do not have such a programme to adopt one.

When a member of the Air BP workforce carries out work activities on a non Air BP facility the Practice may not be applicable. However, personal safety of an individual is of utmost concern, and an individual shall not be expected to undertake work they consider unsafe. Work activities should be controlled using the 'host company' safety management system(s). In this instance Air BP shall ensure that those systems are robust/fit for purpose and encourage the companies to adopt CoW programs that are at least as protective as this Practice. In the event that the host company standards do not meet the principles of this Practice, and the BP employee feels exposed to risk of personal injury, then the employee shall be free to decline the expectation to undertake the work.

3.1.2 Waivers

Given the global nature of this practice, it is recognised that certain PU or Country specific waivers may be required.

These may be due to such aspects as:

- • Regulatory requirements.
- • Joint Venture agreements.
- • Use of other BP Group Business Units for CoW management.
- • Use of third parties for CoW management.

Where there is a need to develop local variations that deviate from this practice, waivers shall be prepared through ADM 30 and submitted by the PU CoW Authority and authorisation obtained from the Global CoW Authority and by the Air BP Technical Director.

3.1.3 Legal Considerations

In the event of a conflict between the requirements in this Practice and a relevant law or regulation, the relevant law or regulation shall be followed. If the Practice creates a higher obligation, it shall be followed as long as full compliance with the relevant law or regulation is also achieved.

For the sake of clarity, wherever a relevant law or regulation is deemed to take precedence over the Practice this shall be registered as a waiver from the Practice, as outlined above.

3.2 ROLES & ACCOUNTABILITIES

The appointment of the principal roles within the Air BP for Control of Work is defined as follows:

3.2.1 Technical Director (TD)

Shall be the Single Point Accountability (SPA) for CoW in Air BP and accountable for setting this practice with ultimate authority for all CoW procedures (including final endorsement of any waivers). The (TD) may delegate the management and administration of the CoW activities to Global CoW Authority.

3.2.2 Global CoW Authority

Shall:

- Be accountable for the CoW process within the SPU for Air BP's global activities.
- Interpret the Practice and how it will be applied in Air BP.
- Ensure all Air BP processes for CoW are in alignment with BP Group requirements.
- Develop and maintain CoW training material.
- Ensure CoW training of PU CoW Authorities.
- Assure the competency of PU CoW Authorities and Country CoW Authorities (where required), as per ADM 60.
- Approve and certify the PU CoW Authorities in writing.
- Ensure that the CoW activities in the SPU are reviewed by sampling annually to confirm that the process meets the requirements of the Practice.
- Ensure the Practice is up to date and MoC process is followed when the Practice is revised.
- Ensure the CoW Process is working by arranging for conformance audits.
- Ensure CoW related lessons from within Air BP and the Group are shared.
- Ensure availability of resources required for smooth running of the CoW Process/System.
- Ensure the Practice is reviewed every three years.

3.2.3 PU Operations Manager

Shall:

- Be accountable for the CoW process within the PU.
- Ensure conformance with Practice and compliance with regulations and documentation in CoW.
- Nominate PU CoW Authority for approval by the Global CoW Authority.
- Ensure competency of all Authorities related to CoW is assessed
- Ensure CoW training is provided in the PU.
- Ensure CoW records of individuals are maintained.
- Ensure PU CoW Authorities assess and certify the competence of PtW IAs
- Certify all IA.
- Ensure accredited third party/contractors are used.

- Ensure CoW Process within PU is reviewed annually.
- Ensure CoW Lessons Learned are passed to the CoW/PtW Authorities and Site Managers.
- Assume or delegate the duties of a Site Manager if the post does not exist

The PU Operations Manager may nominate a Country CoW Authority for specific countries within their PU. Nominations may be within respective countries, or from outside, but language ability is seen as a significant issues.

3.2.4 Site Manager

Shall:

- Be accountable for the safe undertaking of all activities, including the CoW Practice, on their site.
Ensure accredited third party/contractors work on site.
- Ensure all contractors are assessed as competent for the activities planned.
- Ensure permit management and associated registers (e.g. inhibits/overrides/isolation/etc.) are maintained in an up-to-date condition.
- Ensure lessons learned are shared with workforce and PU CoW Authorities.
- Ensure site compliance with relevant local and national legislation.

PU Operations Manager or one of his delegates e.g. Operations Engineer to assume the duties of a Site Manager for those sites where this post does not exist.

3.2.5 Project Manager

Shall be responsible for the delivery of CoW within the project.

3.2.6 PU CoW Authority

Shall:

- Receive delegated authorities from the Global CoW Authority. Every PU shall have delegated PU CoW Authority.
- Ensure the necessary training for all staff in the PU, including refresher training, is carried out.
- Ensure that national regulations are included in the training and applied (this can be delegated to the Country CoW Authority).
- Assure the competency of all Country CoW Authorities, where applicable.
- Certify all Issuing Authorities (IAs) after ensuring that they have undergone the correct training and have the right levels of competency.
- Ensure that a list of all IAs is maintained, including authority levels.
- Maintain a PU specific register for PtW authorities with regular tracking and renewal.
- Ensure PtW conformance and implementation is assessed annually.

3.2.7 Country CoW Authority

Shall:

- Carry out the duties delegated by the PU CoW Authority.
- Manage the necessary training for all staff in the country, including refresher training.
- Ensure that national regulations are included in the training and applied.
- Assure and certify all IAs in country (where authorised), after ensuring that they have undergone training and have the right levels of competency.

3.2.8 PtW Issuing Authority (IA)

Shall:

- Compile and sign Work Permits and other CoW documentations, for which they have the authorisation.
- Be trained and assessed competent to understand the work activities, be able to identify the associated hazards and evaluate the risks associated with those hazards.
- Be accountable for the supervision of the works but they may delegate the responsibility to a Monitoring Authority (MA).
- Ensure that the MA is competent to perform the required duties.

The IA may be either a third party personnel or BP employee. Third party personnel (e.g. Agents, Dealers, project staff) training and authorisation requirements are identical to those for BP staff.

3.2.9 Monitoring Authority (MA)

Shall:

- Have adequate knowledge and understanding of the hazards related to the work and of the permit conditions.
- Be empowered to **stop** work activities if considered necessary for whatever reason.

The MA is authorised to re-endorse (where there are no changes to conditions) or withdraw Work Permits. If conditions have changed, then the MA shall consult with the IA to review and formally agree any changes to the Work Permit before the permit is re-endorsed (or a new Work Permit issued).

Frequency and type of monitoring required is defined as part of the Task Risk Assessment (TRA) process.

A MA shall not be a Performing Authority (PA) for the same Work Permit.

The MA, may be either an authorised BP employee or an authorised third party personnel representing BP.

3.2.10 Performing Authority (PA)

Shall:

Be competent to perform the work, will receive the Work Permit and will either be in control of the people doing the work or may be the person doing the work.

Be responsible for ensuring that all conditions on the permit are complied with at all times, all personnel working under the Work Permit are appropriately trained and qualified to carry out tasks allocated to them. And that tools and equipment that are used for the work and fit for purpose and inspected by competent person.

The PA may be either a contractor or a BP employee.

3.2.11 Delegation, acceptance and record of Authorities

Delegations of Authority shall be valid for a three year period and renewed or cancelled following the three year period. Renewal of delegation shall only be appropriate after re-assessment of competency.

3.2.12 Authorised Gas Testers (AGT)

- An Authorised Gas Tester (AGT) is defined as a person who is trained, assessed as competent and authorised to use gas detector equipment. They shall be authorised to test for the presence of flammable vapours, toxic gas and oxygen in support of the permit or confined space entry.
- An AGT's training should be provided by the manufacturer of the equipment (or a recognised agent) and should be valid for a maximum of two years (or a frequency required by local legislation).
- The AGT remains authorised, subject to the person using the gas tester equipment regularly or at least once every twelve months. Anyone not having used a gas detector in the previous twelve months shall undergo refresher training in the form of supervised equipment re-familiarisation before carrying out gas testing.
- If an Air BP AGT is unavailable an independent AGT with gas tester equipment may be used to carry out the initial test, provided there is evidence of their competency and authorised to use the test equipment.

Appendix 7 provides additional information on AGT, equipment calibration, Gas Free Certificate and gas testing procedures.

3.3 Training and COMPETENCY

Processes shall be in place to identify and close any gaps in the system and shortfalls in individual's competencies. Contractors shall demonstrate and document that their staff are competent to carry out their assigned work, subject to existing contractual constraints.

An individual is only competent when the person is able to perform the task in the correct manner, with the correct understanding and reasoning behind the task and an understanding of the risks and mitigating steps required. To be competent, an individual shall first be trained, then have their performance of the task and understanding behind it checked through assessments.

Training of contract employees is primarily the responsibility of the contractor. However, Air BP needs to ensure that the appropriate training has been identified and received and that the contractor employees are competent to undertake the tasks expected of them.

Appendix 5 shows competency and training requirements for the different roles in the CoW Process in Air BP.

3.3.1 Training

There are three types of training:

- Initial training

- This is given to all personnel who are being considered for authorities in CoW/PtW
- Refresher training
- This is given periodically to maintain proficiency and sometimes to meet regulatory requirements and always includes an assessment.
- Remedial training
- This is given to personnel whose level of knowledge, skills or proficiency is below that expected and it always includes an assessment to check proficiency.
-
- Training should be delivered to an IA in their native language (unless the individual is fluent in another language) and shall be delivered by the Central Technical Function/ PU / Country CoW Authority or an external accredited trainer. The trainer shall be competent and experienced in CoW application in an operational environment. If the training is delivered by an external trainer the PU CoW Authority shall audit the quality of the training delivered.
-
- Training covers two PtW issuing Authority levels: Level 1 and Level 2. PtW training requirements and competency requirements of individual roles are detailed in Appendix 5.

3.3.2 PtW Level 1 training requirements

All IAs shall undergo initial training for Level 1 that covers:

- CoW Practice.
- Method Statements (MS).
- Hazard Identification and Task Risk Assessment HITRA. (Refer to GEN 9A for more information).
- Principles of PtW systems.
- LOTO (isolation of energy systems). (Refer to GEN 51 part 1 for detail).
- Each type of Work Permit within the system.
- Statutory regulations for safety at work.
- Classification of confined spaces and hot work.
- Written examination to test understanding of the CoW & Work Permit system and ability to complete Work Permits.
- Practical/on-site competency assessment.

3.3.3 PtW Level 2 training requirements

Progressive training is required to ensure Level 2 competency. Separate additional training by approved trainers shall be undertaken for:

- Confined Space Entry (Refer to GEN 51 part 3 for more information).
- Gas Free Certification.
- Hot Work. (Refer to GEN 51 part 17 for more information).
- Working at Heights (Refer to GEN 51 part 8 for more information).
- Lifting Operations (Refer to GEN 51 part 11 for more information).
- Ground Disturbance / Excavations (Refer to GEN51 part 22 for more information).

- Practical/on-site competency assessment.

3.3.4 PtW Monitoring Authority briefing pack

The IA shall ensure that the MA has a local generic briefing that covers:

- CoW Practice (relative to MA obligations).
- Principles of PtW systems.
- Air BP Work Permit forms for their site.
- Operational and emergency procedures for the site
- MS and Hazard Identification and Task Risk Assessment HITRA awareness
- Work Permit re-endorsement, suspension and completion.
- IA expectation on monitoring

3.3.5 Competency assessment and Authorisation

Successful completion of the training will require a pass mark stipulated by the CoW Authority.

The PU/Country CoW Authority and PU Operations Manager should authorise an IA after satisfactory assessment of the competency of the individual; including satisfactory examination and review of three Work Permits with written feedback. **Appendix 2** details an example authorisation form.

Level 1 authority is required to permit low risk activities associated with general, cold work only or hot work in safe areas only

Level 2 authority is the next higher stage and, as well as covering all of Level 1 authority, will allow the authorisation of activities with risk higher than Level 1 activities (refer to **Appendix 4** for more information on Activity Levels).

Level 2 authority is not a blanket authority for all activities covered under Level 2 authority. Specific authority shall be given for each activity in Level 2 (e.g. an individual may have authority to issue Confined Space Entry Work Permits, but not Hot Work, Working at Heights etc.)

If a Level 1 or Level 2 IA does not complete three Work Permits a year their authority shall either be suspended until refresher training is successfully completed or removed if they no longer need to act as a PtW authority.

An IA's authorisation shall be certified for a maximum of three years. However, if at any time there is any doubt on the competency of an IA, for example following audit, the PU / Country CoW Authority shall be referred to and authorisation may be withdrawn.

If temporary extension of an individual's delegation is required, this shall only be an interim measure e.g. due to timing of next available refresher training course. A temporary extension of an individual's delegation may only be utilised if;

- the individual has been active in CoW / PtW,
- their current competence has been assessed by their line management in the CoW process by reviewing a selection of their recently issued permits.
- the extension is formally documented with a stated expiry and approved by the PU CoW Authority and PU Operations Manager

3.3.6 Training and competency records

A training program shall be in place in every PU that accounts for initial users, those requiring refresher training and those requiring remedial training. It shall identify all personnel designated a CoW role (detailed in section 3.2) and the training required by the designated personnel in order to fulfil their roles.

Training and assessment records shall be maintained for all personnel approved to manage CoW activities. The records should include any training received as well as qualifications and certificates held, and the due dates for refresher training and re-certification.

3.4 PLANNING & SCHEDULING

Any non-routine work shall be subject to formal work planning in advance of the work being executed, to ensure that all safety implications have been considered *and* which will allow time to:

- Define exactly how the work will be done.
- Arrange resources for the work.
- Prioritise work to reduce conflict between tasks.
- Review associated procedures.
- Undertake TRA.
- Define exactly how the work will be done.
- Properly close off work.

The planning method can vary depending on the work under consideration, in particular its complexity or urgency (e.g. breakdowns). In general, the overall process by which formal planning is carried out is (in order of activity):

- Execution plan.
- Planning meeting.
- MS.
- Emergency Response Plan
- Resource plan.
- Simultaneous Operation (SIMOPS)
- TRA

After agreement on the method of work at the planning meeting, a MS shall be produced by the Performing Authority (contractor or BP) and approved by the IA, PA and the planning team prior to undertaking the TRA.

*Planning meeting documentation and deliverables for all the above planning activities are detailed in **Appendix 3**. The checklist in **Appendix 3A** should be completed by the person who is planning the works as a basic check / prompt list to ensure that the routine operations and the non-routine works are considered in conjunction of one another. The checklist is not an exhaustive and other questions may be raised and recorded, depending on activity or the site. It does not replace any CVP or PHSSER process review.*

3.5 RISK ASSESSMENT

To ensure that a Risk Assessment (RA) is conducted and is capable of coping with various levels of complexity, dependent upon the hazards, likelihood of those hazards being realized and the extent of the controls and mitigation needed to ensure that the work can be completed safely.

Part of the planning process before a job can begin is an assessment of the potential risks while it is being carried out, so that the methods for controlling the risks can be agreed.

3.5.1 TASK RISK ASSESSMENT

Task Risk Assessment (TRA) is the process of identifying hazards associated with an activity, estimating the level of risk involved and evaluating whether the hazards are adequately controlled so that the work can be completed safely. A TRA shall be carried out before any task is conducted.

Where possible, the risks should be eliminated before the job starts. If this is not possible they should be mitigated, i.e. their effect reduced to as low as reasonably possible.

The preferred RA process for CoW is the Hazard Identification TRA (HITRA) that aligns with the BP Group Guidance document: GG3.1-0002 - The main requirements for HITRA process is detailed in GEN 9A. Other RA processes may be acceptable, e.g. contractors own RA process, subject to the process being a weighted RA. The MS prepared for the work under review and agreed following the planning meeting, is a pre-requisite for the RA.

Part of the planning process that follows logically from the RA is a consideration of what would happen if things go wrong, and how that would be controlled.

Site Managers may also be required to authorise high risk activities in addition to the IA and Operations/Country Managers. This is to ensure that all involved in a task agree with the RA. The levels of activities are tied to those defined in **Appendix 4**.

3.6 PERMIT TO WORK

The Work Permit is a formal agreement between the IA and the PA stipulating conditions under which work can be performed safely. The IA issues the Work Permit giving permission while the PA confirms by signature that the restrictions and precautions are understood and shall be followed by all involved. The Permitting Process forces joint planning of the work by IAs and PAs.

Beyond merely 'giving permission', the IA has to ensure that the work place is safe and that the equipment is free of energy and toxic or flammable substances. A visit to the work place shall be made with the PA to identify the correct equipment to be worked on and to make sure that all safety measures are in place and understood and to identify any problems that may have previously been overlooked and any material changes to the site.

3.6.1 Activity Levels and Authorisation to proceed

Non-routine activities have been categorised into 2 Levels based on the complexity and residual risk.

- Level 1 activities shall be authorised by an approved Level 1 IA, the Site Manager may also be required to authorise level 1 activities in addition to the IA.

Level 2 activities

Level 2 activities have been sub-categorised into Level 2 Medium and 2 High based on the complexity and risks associated with each activity.

Level 2 Medium Risk activities require a higher level of authorisation than Level 1 due to higher inherent Risk Level and require both operational and technical authorisation. An approved Level 2 IA and Country Operations Manager or equivalent shall authorise a Level 2 Medium Risk activity.

Level 2 High Risk activities have the highest inherent risk level and require both operational and technical authorisation. Level 2 High Risk activities shall be authorised by approved Level 2 Authorities with input from a Subject Mater Expert SME and PU/Country Operations Manager or Site Manager and shall only be undertaken with the approval from the PU Operations Manager.

Where no-one is authorised in the PtW Process to permit the specific activities at site, an authorised IA shall be consulted to ensure that expert input is provided into both the MS and the RA.

3.6.2 Work Permit preparation

All the information required for completing the Work Permit, including all associated permit documentation such as

- Approved MS (see Appendix 3 for additional information on MS)
- RAs,
- Any mechanical, electrical or other energy isolation requirements.(see GEN 51) and etc. Shall be supplied at this stage.

Summary of the forms commonly used in Air BP PtW system can be found in Appendix 7.

Work Permit preparation should be done before the works are due to commence; this should give enough time to the person approving the Work Permit to review it and for the operations staff to plan for the work. Conditions shall be verified immediately before the commencement of work.

The IA approving the Work Permit shall review all the applications for PtW and indicate which additional permits/documents are required in order to allow approval of the work (Hot Work, Confined Space, Excavation, Energy Isolation, SIMOPS Plan, etc.)

All necessary permits are required to be fully completed and approved prior to PA carrying out the work.

Prior to commencement of the site works a meeting shall be held on site between the Site Manager/IA, relevant third parties and the PA to discuss and agree upon the CoW matters that are foreseeable for the duration of the activity (for more information on Site Meeting prior to work permit preparation and start of work refer to **Appendix 7**)

3.6.3 Issuing of the Work Permit

Site Managers are ultimately responsible for the safe conduct of operations on their sites. Notwithstanding anything written in these procedures, any person may stop work in the interests of overall plant and personnel safety. If there is more than one IA on site, the Site Manager or Project Manager will coordinate multiple issuing authorities.

3.6.4 Issuing Authority obligations

The IA shall ensure that:

- They have the correct authority level to issue the Work Permit for the particular type of work.
- All contractor staff undergo a site induction consisting of an overview of hazards of the industry including ignition sources; PPE requirements, overview of Work

Permit system including LOTO; safety roles, emergency procedures including locations of muster point, fire fighting equipment, spill response equipment and first aid facilities; environmental policy and incident reporting.

- RA is authorised by a responsible person with correct authority level.
- All works are performed in accordance with conditions of the Work Permit (can be delegated to MA).
- The PA (and delegate) verify their understanding of the task, risks and control measures and that this has been effectively communicated to all work force (toolbox).
- PA and any delegated Authority (e.g. PA deputy, MA) are present and understand the Work Permit conditions; this includes the requirement that work shall stop with any changes in conditions and that the changes be reported so that the Work Permit can be reviewed as necessary.
- All necessary precautions required to overcome hazards prior to the issue of the Work Permit have been carried out.
- An initial inspection of the work location and of the control measures is carried out with the PA.
- Energy isolations are in place and tested to ensure the isolations are effective.
- The Site Manager (or authorised designate), if not the IA, is aware of and agrees to the work being done and to the conditions of the Work Permit.
- Certification of any equipment to be used (e.g. equipment, plant, PPE) is verified.
- Certification and training records for the personnel, supervisors and designated persons (including medical certificates where applicable) are verified.
- An emergency response plan (based on potential emergencies) is in place before commencing work, known to the workforce and proven.
- If the IA leaves site at any time the supervising duties shall be delegated to an authorised MA.
- Site hazards, process hazards, SIMOPS, other permits, human factors and etc reviewed.

3.6.5 Work Permit contents

The IA is responsible for ensuring that the Work Permit:

- Has unique numbering to ensure traceability.
- Define the scope of work.
- Is cross-referenced to other associated work or simultaneous operation, relevant certificates/documentation with which it interacts.
- Identifies how the work will be undertaken (references the authorised MS).
- References all attachments and procedures.
- Defines the location of the work site or area.
- Identifies the item of equipment to be worked on.

- Defines the time period for which the Work Permit is valid – a maximum of 12 hours is permitted before requiring re-endorsement or re-issue.
- References authorised RA and Identifies significant controls.
- Defines precautions to safeguard against remaining hazards (i.e. wearing of gloves, goggles, masks)
- Stipulates, when applicable, gas testing (including frequency of testing and monitoring).
- Defines all energy isolation requirements.
- Records isolations that are common to more than one permit, and prevents these isolations being removed before all permits have been signed off.
- Lists, either in writing or on a checklist, any task specific precautions, checks and conditions for safe working that need to be taken.
- Has referenced adequate emergency procedures, including variations to site standard procedures.
- Stipulates that an item of equipment, which is to be removed from the operating area for further work, is decontaminated as far as is possible in the operating area.
- Has close out procedures, isolation, removals and handover requirements.
- Ensures control over acceptance of completed work (or provision if the work is not complete) hand-back and return to normal operations.
- Records those conditions under which the Work Permit must be suspended.
- Has a section or prompt to highlight any lessons learned to aid review of the system.
- Details the MA.
- Details, and has signatures for, the IA, PA, site representative and anyone to whom they delegate authority (e.g. MA, PA Deputy) on the original Work Permit and any copies.
- Is filed and not discarded even if the PtW is voided due to error.

NOTE: *One Work Permit may cover any number of workers irrespective of trade employed on the job specified. The IA to ensure that it is clear to the workforce what activity is approved to be undertaken under the authorised work permit.*

3.6.6 Display of permits

Work Permits shall be displayed in a central control area so that all operating personnel are aware of the range of works being undertaken. Work Permits shall also be displayed at the work site with the associated paperwork, i.e. MS and RA

3.6.7 Record keeping and retention of Permits

IA's and sites shall retain copies of all Work Permit's raised for at least three years and make these available for audit as required, including when being re-certified as an IA.

3.6.8 When is a work permit not required

Activities which have risk assessed site specific task breakdowns do not require a Work Permit, unless specifically required by the task breakdown. Where situations change then it is important that these procedures are reviewed and updated accordingly.

The Site Manager, or representative, may allow specific low hazard tasks to be performed without the issue of a Work Permit or a formal procedure. They shall satisfy themselves that the risks are as low as reasonably practicable and that the tasks are performed by competent personnel.

Examples of activities that do not generally require a Work Permit include:

- *Routine work in offices, and domestic activities.*
- *General housekeeping.*
- *Use of general standard tools and equipment inside accommodation areas, workshops, control rooms, offices and other non-hazardous locations.*
- *Use of battery-operated cameras in non-hazardous areas.*
- *Visual inspection of equipment/areas (except confined space).*
- *Operation of equipment for approved training purposes, e.g. use of fire fighting or lifesaving appliances during drills.*
- *The handling and use of non-hazardous materials.*
- *Work of a cold nature (i.e. machining, fitting, turning and calibration work) in workshops in non-hazardous zones.*
- *Safety equipment checks.*
- *Carpentry work by approved contractors.*
- *Routine operations tasks e.g. start/stop pumps, fuel sampling etc.*

3.6.9 Remote permitting conditions

Self-permitting – the instance where an individual defines the scope of a work activity, carries out a RA, defines controls, authorises, validates and accepts a Work Permit – is not allowed.

Activities should be planned such that suitable resource is on site to undertake the individual roles in the PtW system. However, remote issue/validation is allowed; the preparation stages prior to Work Permit issue shall be followed and involve a second party.

Remote permitting relies heavily on the competence of those performing the work at remote locations. They should be able to demonstrate that they have the skills and knowledge necessary to carry out the work, including the ability to safely carry out electrical and mechanical isolations where required. They should have the skills and competency necessary to identify work-scope, hazards, controls and mitigation measures.

It is sufficient for a higher authority level to approve the RA, MS and Work Permit and for the lower level authority to supervise if they are deemed competent to do so, e.g. a Level 2 IA could approve a Work Permit for Hot Work to be carried out at a site where a Level 1 IA could monitor the works.

If remote delegation is to occur, the activity of delegation shall be identified in the RA, and control mitigation measures determined.

The guidelines that relate to remote permitting are:

- *If the activity has a risk assessed Site Specific Task Breakdown (SSTB) and is performed by a trained and assessed competent contractor, work permitting should not be required.*

If the activity is a non-routine activity the following shall be required

- *Work Permit.*
- *The person requesting the Work Permit to be on site.*
- *The off-site approver (IA) shall to be satisfied that necessary controls are in place and a competent MA will supervise the work. The IA retains accountability for the Work Permit.*
- *Written authorisation to be communicated back to the site.*
- *For Level 1 work to be authorised remotely, a Level 1 or competent MA (e.g. a contractor who has been trained but not authorised as an IA) to be on site as a minimum. This is considered acceptable if the activity is assessed as low risk i.e. a level 1 activity with controls in place assessed as low risk could be monitored by a MA.*
- *For Level 2 work to be authorised remotely, a Level 1 IA as a minimum be on site monitoring the works. For higher risk level 2 activities e.g. confined space entry, an approved Level 2 IA to be on site and monitor the works directly.*
- *For Level 2 High Activities to be authorised remotely, a suitable Level 2 authority to be on site monitoring the works.*
- *The off-site approver (IA) to be notified at the agreed intervals on status of the activity, upon completion and of any lessons learned.*

Higher level authorisation may be carried out remotely only in those circumstance where the remote authoriser has good personal knowledge of the site concerned. The remote authoriser will approve the RA and MS for the work with a copy of the prepared Work Permit; these approved details shall be transmitted to site with applicable conditions, where the site IA or accredited person shall sign the Work Permit and hold the authorised copies.

Before starting to carry out the work the PA should establish communication with the IA with whom they should maintain regular communication for the duration of the work. to maintain proper communication with the IA, the PA should be provided with a reliable system of communication and be competent in the use of that system.

At work completion, the PA is required to notify and agree with the IA the close out of the Work Permit before leaving the site.

3.6.10 Work on Air BP equipment/assets in non-Air BP Operated JV or GA sites

The process for work on Air BP owned assets in a non-Air BP operated JV or GA site should comply with Air BP CoW and PtW requirements, the individual who initiates or owns the work has the responsibility for ensuring that the requirements of Air BP CoW and PtW system are met.

The work processes are outlined below:

- The Air BP representative identifies scopes and plans the work on an Air BP asset.
- The Air BP representative selects the Contractor.
- The Air BP representative accepts the contractor's MS for undertaking the work.
- The Air BP representative participates in the RA, ensuring Air BP requirements are incorporated.
- Responsibility for energy isolation and monitoring of the works to be agreed upon with the operating company.
- The operating company inducts the personnel and authorise the work permit.
- Upon completion of works, the Air BP representative commissions and accepts the works.
- The Operating Company closes the work permit.

Air BP PU Operations Manager and CoW Authority are accountable to ensure that the Air BP representatives who initiate or own work on a non-Air BP-operated JV or GA site is competent and understands the Air BP Control of Work standard, Air BP Permit to Work system and HSSE golden rules of safety. The Site operating company has responsibility for overall HSE requirements, and should raise the necessary work permit(s), on the other hand, the work shall be conducted safely and in order to do so the site operating company PtW system should be reviewed to ensure all risks are identified and control measures are acceptable. Any work on a non-Air BP operated site should be based on agreement/contract between the two parties. If the operating company doesn't have a robust enough PtW system Air BP representatives should provide support or agree with the operating company to use Air BP PtW system. The site operating company must be kept informed of MS, RA and must agree for the work to proceed by co-signing the PtW.

3.6.11 Annual Work Permits

To save the need for repeated production of routine Work Permits for potentially hazardous activities, annual Work Permits may be raised. These types of Work Permits can only be valid provided that the personnel and conditions on site remain constant; any changes will require a new Work Permit to be issued. This type of Work Permit may possibly be utilised for the following activities:

- Vehicle wheel changing.
- Fire extinguisher maintenance.
- General cleaning.
- Window cleaning (up to one storey in height).
- Snow clearance, except for snow on roofs.
- Specific workshop activities.

TRA shall have been carried out for the above tasks before the Work Permit can be issued and the level of risk should be low enough for the issue of an annual Work Permit to be deemed suitable.

3.6.12 Site Safe Working Practices

Site Safe Working Practices GEN 51 provides guidance to those who are tasked with the control of work activities on site, and where there is no Site-Specific Task Breakdown. The SSWP should be applied wherever Air BP is in control of the site, or is accountable for the permit issuing and safe working on the site. SSWP consists of several parts covering a range of non-routine activities and provide procedure and minimum requirement to ensure that non-routine activities are undertaken in a controlled, lowest possible risk environment. A list of all SSWP activities are provided in Appendix 8

3.7 WRITTEN METHODS & ACCEPTANCE OF PERMITS

All people on site shall be aware of the work being undertaken. Operations and other relevant personnel shall be told of the impact and status of all work which may affect operations or other on-going work.

3.7.1 Site Induction

All new personnel coming to do work at a site shall be inducted to advise them about hazards that are present at the site, acquaint them with Air BP HSSE policies, site safety requirements and what to do in an emergency. GEN 16 details specific site induction requirements. A record shall be maintained of all those that have attended the site induction training.

3.7.2 Acceptance of communication - Handover to PA

In signing the Work Permit the PA confirms that they understand and accept all conditions and controls imposed and commit to communicating this to all involved in the work.

The PA shall ensure that the workforce members are made aware of the Work Permit contents, especially the:

Scope of work.

Hazards that may be encountered.

The controls and mitigating actions that are in place to reduce these hazards and their affects.

The above shall be discussed in a tool box meeting that is held just before commencement of the work. Workforce members shall sign the back of the worksite Work Permit or attendance sheet of the tool box meeting to formally acknowledge that they fully understand the contents of the Work Permit and the measures for safe execution of the work. A record of the tool box meeting(s) shall be retained on completion of the works.

The IA shall ensure that the PA

- Understand the hazards and control measures affecting the works covered under the Work Permit and be on site at all times for the Work Permit to be valid. If the PA leaves site at any time the work is to be suspended, unless their Work Permit authorised delegate remains on site.
- Be responsible for ensuring that the work site is kept in a safe condition and all potential hazards are removed /controlled, both during the work, at the end of each work period and on work completion.

- Undertake safety discussions with their workforce and provide evidence of these discussions; this can either be by signing a toolbox form or by signing the back of the Work Permit to indicate that the workforce understand the task as documented, the associated risks and will comply with, the conditions of the Work Permit.
- Be responsible for checking that all the control measures listed on the Work Permit, including isolations have been carried out and that works are performed in accordance with the Work Permit conditions.
- Take those precautions necessary to comply with relevant Occupational Health and Safety Legislation, Industrial Major Hazards Legislation, BP standards and site rules.
- Display the original Work Permit in the work area until the job is completed and the area or equipment is returned to service or until the Work Permit expires.
- Ensure that the workforce understand that they are authorised to do only the work described in the Work Permit and that everyone has an obligation to stop work that is unsafe.
- Ensure that the workforce is competent to use the individual equipment designated for their use.
- Ensure that all equipment and PPE used in performing the work is assessed fit for purpose by a competent person through inspection and/or review of any certification within date for testing and re-certification, and free from obvious defects / excessive wear.
- Ensure that the IA is notified if trades other than those to whom the Work Permit is issued are called to assist, the PA is responsible for ensuring that they are acquainted with the job and details outlined on the Work Permit

3.8 PERMIT MONITORING

All on-going work requiring a permit shall be managed and monitored at defined intervals by a responsible person. It is important to ensure that only the work described on the Work Permit is carried out, i.e. work shall only be carried out within the scope of the Work Permit and that the conditions detailed on the Work Permit have not been compromised and that work continues in a safe manner.

It is the IA's responsibility to decide and provide the appropriate level of monitoring of work and maintain regular communication with those performing the work.

The IA may delegate the responsibility for monitoring to a MA, but the IA retains accountability for the Work Permit. The IA shall ensure that if monitoring is delegated, the MA is competent to perform the required duties. If the activity is identified in the RA as a low risk, the IA may delegate the monitoring one level down (i.e. a level 1 activity with controls in place assessed as low risk could be monitored by a MA). For higher risk activities e.g. confined space entry an approved Level 2 IA shall be on site and shall monitor the works directly. The role of MA is detailed in section 3.2.

The IA or delegated MA shall regularly visit the worksite to ensure that the work force is complying with the Work Permit conditions and to assess whether the original Work Permit still covers the work in progress.

3.8.1 Status of work permits

The status of Work Permits (including a register of associated overrides/isolations) shall be verified to be accurate, up to date and available at a designated location.

- A copy of all Work Permits and associated certificates currently in force shall be held at a suitable location (e.g. operations control room or the site office).
- The Site Manager or his representative shall monitor the status of all Work Permits and ensure that associated registers for isolations, overrides and inhibits are maintained in an up-to-date condition.

Isolations that are common to more than one permit shall be recorded and prevented from being removed before all applicable permits have been signed off

3.8.2 Monitoring Work and Work Permit conditions

The frequency and level of monitoring of the work site is determined as an output of the RA. The minimum accepted times for conducting monitoring inspections are:

- Before work commences (part of Work Permit issue requirements).
- Every two hours whilst the Work Permit is in force – the IA may determine different intervals, e.g. continuous monitoring, or less than two hours. The times of these intermediate inspections shall be recorded on the original Work Permit. This monitoring inspection shall be recorded on the Work Permit displayed on site.
- After work is completed – the site is inspected to ensure it is left in a clean and safe condition and that the equipment is ready for safe operation.

The monitoring requirements shall be communicated by the IA to all parties and indicated on the Work Permit. Depending on the type of work being conducted the PA may be required to carry out additional monitoring checks specified as Work Permit control measures, e.g. gas testing and fire watch.

3.8.3 Changes of control

- The IA may leave site as long as a MA has been delegated and the activity was assessed as low risk.
- Site works may only continue with the presence on site of either the IA or an MA.
- MA shall not delegate monitoring to another, unless the IA has agreed the new MA is competent and they have signed the Work Permit to accept.
- The PA may only leave site if their responsibilities are delegated to another competent person who was part of the initial briefing at the time the Work Permit was being issued. If the above conditions cannot be met, then work shall stop.

3.8.4 Work interruption

If work is interrupted, the site conditions and appropriate control measures shall be re-assessed and confirmed as being in a safe condition before work is allowed to re-commence. Interruptions may include meal breaks, smoke breaks, alarms, emergency situations and shift changes. More specifically:

- After any break in activity or shift handover between incoming and on-going personnel, the conditions and control measures and associated registers for isolations shall be reassessed as compliant with the current Work Permit by the IA/MA and PA before any work can restart.
- Where conditions or control measures are seen to have changed, work shall not restart until the situation has been assessed by a competent person and conditions returned to those required by the Work Permit. If this cannot be achieved, a new Work Permit may be required.

3.8.5 Invalidation of Work Permits

The Work Permit becomes invalid and work activities shall be stopped in any of the following circumstances:

- Anyone has doubts about safety on the job.
- The Work Permit time limit has expired.
- The PA has doubts about the work.
- There are changes to conditions that could affect safe working, e.g. lightning, bad visibility, high winds, ice.
- The area normal shutdown periods has expired
- Site emergency alarm sounding.
- Any member of the work party refuses to employ controls stated on the Work Permit.
- There is a change in work conditions / activity and not covered by the Work Permit and associated RA.
- The PA leaves the site and that authority is not delegated on to someone else.
- The IA/MA leaves the site and that authority is not delegated to someone else.
- Work is stopped for some specific reason by site authorities.

The invalid Work Permit should be returned to the IA.

3.8.6 Work Permit re-endorsement

Work Permit re-endorsement is the revalidation of an existing Work Permit which has been suspended due to reasons that could affect safe working as stated in 8.5 above. A worksite inspection and full review of the original Work Permit conditions is required to allow the work to recommence safely before the Work Permit can be re-endorsed.

Re-endorsement confirms that the conditions originally set are still valid. The MA is authorised to re-endorse (where there is no change to conditions). If conditions have changed, then the MA shall consult the IA to review and formally agree if any changes materially impact the Work Permit before the permit is re-endorsed (or a new Work Permit issued). The original Work Permit and any copies of the Work Permit shall be re-endorsed by the IA / MA, the PA and any delegates.

A Work Permit can last a maximum of 12 hours before re-validation is required, and the generally suggested maximum duration of an individual Work Permit is 7 working days.

3.9 WORK COMPLETION AND CLOSE OUT

During all CoW related activities, effort shall be made to continually ensure that the work areas are kept free of unnecessary materials, tools and personnel. Housekeeping responsibility shall be assigned, usually by the PA. This should cover all areas affected by the work and shall include the following:

Tidying up and cleaning of work site and lay-down areas.

Safe storage of any hazardous materials (including the register of hazardous materials).

Removal of any trip hazards.

3.9.1 Work Permit Completion

On completion of the work activities, the work site shall be inspected by both the IA/MA and PA and confirmed as being in a safe condition. Upon satisfactory inspection of the work site the Work Permit shall be closed by signature from the IA/MA and PA. By signing the Work Permit completion section the IA/MA and PA shall indicate that:

- The work area has been left in a safe condition (site walk-round required).
- The work has been completed/or the status of the work.
- All safety features have been reinstated/status of safety features.
- The status of all isolations.
- If testing/pre-commissioning is complete so that equipment can be operated.

The IA may delegate the inspection of the work site to the MA.

The Site Manager, or the person in operational charge, shall also countersign the Work Permit to ensure that they are aware of the works being completed.

Lessons learned (good and bad) during the operation of the Work Permit should be noted and reported to the PU / Country CoW Authority and Site Manager for inclusion in the Work Permit review.

3.9.2 Planned suspension of work

In the case where work activities are halted and personnel leave the work site, e.g. nights and weekends, then the work site shall be left in a safe condition paying particular attention to the following:

- All equipment being worked on shall be left in a safe (isolated) state.
- Fittings or equipment removed or dismantled during the work shall be in a safe condition.
- Material stored safely in the allocated areas.
- Waste material disposed of properly.
- Erection of appropriate warning signs and barricades.
- Excavations shall be covered or barricaded.
- Emergency exits kept clear.
- The PA should indicate the status of the work on the Work Permit and return it to the IA.

3.9.3 Handover to Operations

The conditions acceptable for handover of the finished work back to Operations shall be detailed on the Work Permit. Before handover can occur the following shall be undertaken:

- The equipment being worked on should be de-isolated and reinstated.
- Integrity testing of equipment.
- Relevant safety related devices tested for functionality.
- The equipment/plant/system should be tested for proper functioning and performance data recorded.

3.9.4 Equipment release from site

In the case where equipment is released from the site for maintenance; repair or cleaning at a third party location, the IA shall verify that the equipment to be released from the site has been suitably made safe for the type and nature of the work that is planned to be done; this has to take into account the fact that the third party location may not have

specialist knowledge or PPE that would be available on an Air BP Site. This shall be documented in a signed equipment release certificate, which states the condition and any residual hazards associated with the special nature of the equipment, attached to the equipment.

3.10 AUDITING

A regular program of auditing within Air BP is required for the CoW Process. Individual Work Permits, including any associated RA, should be regularly audited to maintain a consistently high standard of CoW application and make recommendations for improvements. Audits should account for the CoW documentation processes and procedures as well as their correct use and application.

3.10.1 Auditing Accountabilities

The relevant accountable persons in CoW as defined in this Practice have a responsibility to ensure that audits are carried out at different levels:

- **At the SPU level** Air BP shall request an External Audit either by S&OR or by another competent person/body independent of the SPU, at least once every five years. The audits shall examine Conformance with the Practice. The results of the audit shall be reported to the SPU Leader (SPUL). This requirement shall be incorporated in a formal SPU assurance plan covering multi-year activities.
- The **Global CoW Authority** shall ensure that the CoW activities in the SPU are reviewed by sampling annually to confirm that the process meets the requirements of the Practice.
- The **PU Operations Manager** is required to provide assurance that the CoW procedures and processes are being followed and the system is working properly using the checklist in **Appendix 6**. They shall ensure that an annual review is conducted in their PU to confirm that the process meets the requirements of this Practice. The CoW auditing requirements may be delegated at Country level to competent personnel. The review team shall include the CoW Authority for the PU/ Country. The Global CoW Authority shall receive a copy of the findings from the PU review.
- **Country and Site Managers** are responsible for ensuring that the CoW process is being followed at their sites. They shall regularly review the CoW processes and the procedures being used and to satisfy themselves that the standards of the documentation and process are up to an acceptable level.
- **Project Managers** are responsible for ensuring that the CoW process is followed on their project(s). A review of the CoW process should be included into the project plans and conducted in the early stages of the project execution the frequency of subsequent reviews shall be planned to reflect findings and project duration. The review team shall include the CoW Authority for the PU / Country.

Most Air BP operations do not need to issue large numbers of Work Permits; therefore, verification reviews may be more difficult. In these circumstances personnel experienced in the CoW process should try to visit sites when the various types of Work Permit are being issued so that a verification process can be undertaken and compliance can be monitored.

3.10.2 Reporting of audit findings

Audit results shall be recorded, analysed and used to improve the management and quality of the CoW Process. The PU Operations Manager is responsible for ensuring that

the PU Manager, PU CoW Authority, all Country CoW Authority and all Country Managers within the PU are informed of audit results.

Significant findings related to CoW/ PtW shall be communicated to the Global CoW Authority and all PU CoW Authorities for action and/or inclusion in the Work Permit review process.

3.10.3 Responsibilities for closing audit findings

Every PU, Country and Site shall have in place a system for tracking recommendations through to close-out.

To address shortfalls identified by the Audit reviews in each PU, the PU CoW Authority is accountable for ensuring that:

- All actions are closed out timely as agreed after the review.
- Proposed changes to local training packages are reviewed and incorporated as appropriate.
- All lessons learned are passed to the Air BP Global CoW Authority.

The Country Management shall be responsible for ensuring close out of the recommended actions from audits conducted at Country level.

3.11 LESSONS LEARNT

There is a requirement within Air BP to capture and share CoW lessons learned.

It is the responsibility of the IA to notify the PU CoW Authority of any CoW activities which are deemed to have been the subject of lessons learned.

An implementation plan, for the agreed identified lesson learned, needs to be prepared and documented by the PU CoW Authority to ensure that similar occurrences do not repeat themselves. This should be communicated to the Global CoW Authority such that its relevance to other PUs may be considered.

The Global CoW Authority shall ensure that all lessons learned from external sources and from PU reviews are assessed and, where necessary, incorporated in a review of GEN 3 and subsequently shared with the network.

In the event of a CoW incident (or near miss) taking place, it is critical that the specific RA and permitting documentation is reviewed. Following this, lessons learned are then required to be communicated to all concerned through existing methods such as Technical bulletins, meetings, circulars, training, toolbox talks etc.

3.11.1 Sharing lessons learned

It is a requirement for all persons involved in CoW to take a proactive approach to the lessons learned process and confirm that actions resulting from internal and external high value learnings are tracked in an auditable system. The following processes are the means of capturing and disseminating Lessons Learned:

- BP Group Lessons Learned Library
<http://safetylessons.bpweb.bp.com/>
- CoW Lessons Learned Website:
<http://hsse.bpweb.bp.com/Safety/Control of Work/The Standard/The 12 elements/Lessons learned shared/>
- Tr@ction
- Air BP CoW Lesson Learned Website

- <http://airbp.bpweb.bp.com/en/technical/cow/cow.aspx>
- Work Permits - complete lessons learned section of the Work Permit after closure.
- Near miss reports.
- Air BP and PU Ops Integrity Reviews.
- Project Reviews.
- BP Quarterly Safety Bulletin.

3.12 OBLIGATION TO STOP UNSAFE WORK

Everyone has an obligation and authority to stop unsafe work.

3.12.1 The 'Power to intervene'

To deliver the overall CoW aspirations within Air BP, it is vital that management lead and support all personnel to:

- Accept that it is a legal duty to stop unsafe work.
- Refuse to accept unsafe work.
- Refuse to perform unsafe work.
- Intervene to question hazardous situations or unsafe acts (perceived or otherwise).
- Record and report all interventions.

If in doubt stop the work to clarify. It is recognised that this will inevitably introduce a risk of unwarranted work interruptions; this need to be understood and appreciated by those controlling work activities as a necessity to deliver improved safety awareness and consequently a safer working environment for all.

3.12.2 Who is expected to stop unsafe work activities?

In each role and in each phase of the CoW Process, from contractor selection through MS and the associated RA, everyone involved has the opportunity to stop unsafe work. People on the ground at the work site are in the best position to stop unsafe work and prevent an incident from occurring, as this is where any incident will occur.

Every individual has the right to stop an unsafe act from proceeding, until they are satisfied that it is safe. Those questioning the proposals or actual work practices must be treated with respect and not dismissed as interruptions to proceedings. Above all, personnel in management or supervisory roles in Air BP shall demonstrate commitment to this cause, so that the message does not become diluted or considered 'optional'.

To enhance the continued delivery of the 'Power to Intervene' culture, the inclusion of the concept in team meetings and discussions, including the use of examples from others, should be encouraged. Prior to undertaking work, the IA shall communicate to the workforce that they have the obligation and authority to stop unsafe work and reinforce these expectations with the MA and PA.

3.12.3 When to stop unsafe work activities

Work activities shall be stopped if:

- The PA refuses to employ any stated Work Permit controls.
- An objection is raised to the work plan by any of the performers.

- Any significant deviation is observed from the agreed work methods.
- There is any material change in conditions not covered by the Work Permit or associated RA.
- Any observation of an unsafe act by the performers.
- Any adjacent activity placing the performers in a hazardous situation.
- The site emergency alarm sounds.

3.12.4 Emergency actions

On activation of a site/emergency alarm (except for pre-announced testing) all work shall cease and where possible equipment made safe before leaving the area. In the event where personnel are observed to continue working when a site/emergency alarm has been initiated, they shall be informed immediately, without risking personal safety, of their obligations to halt work immediately and follow site emergency procedures.

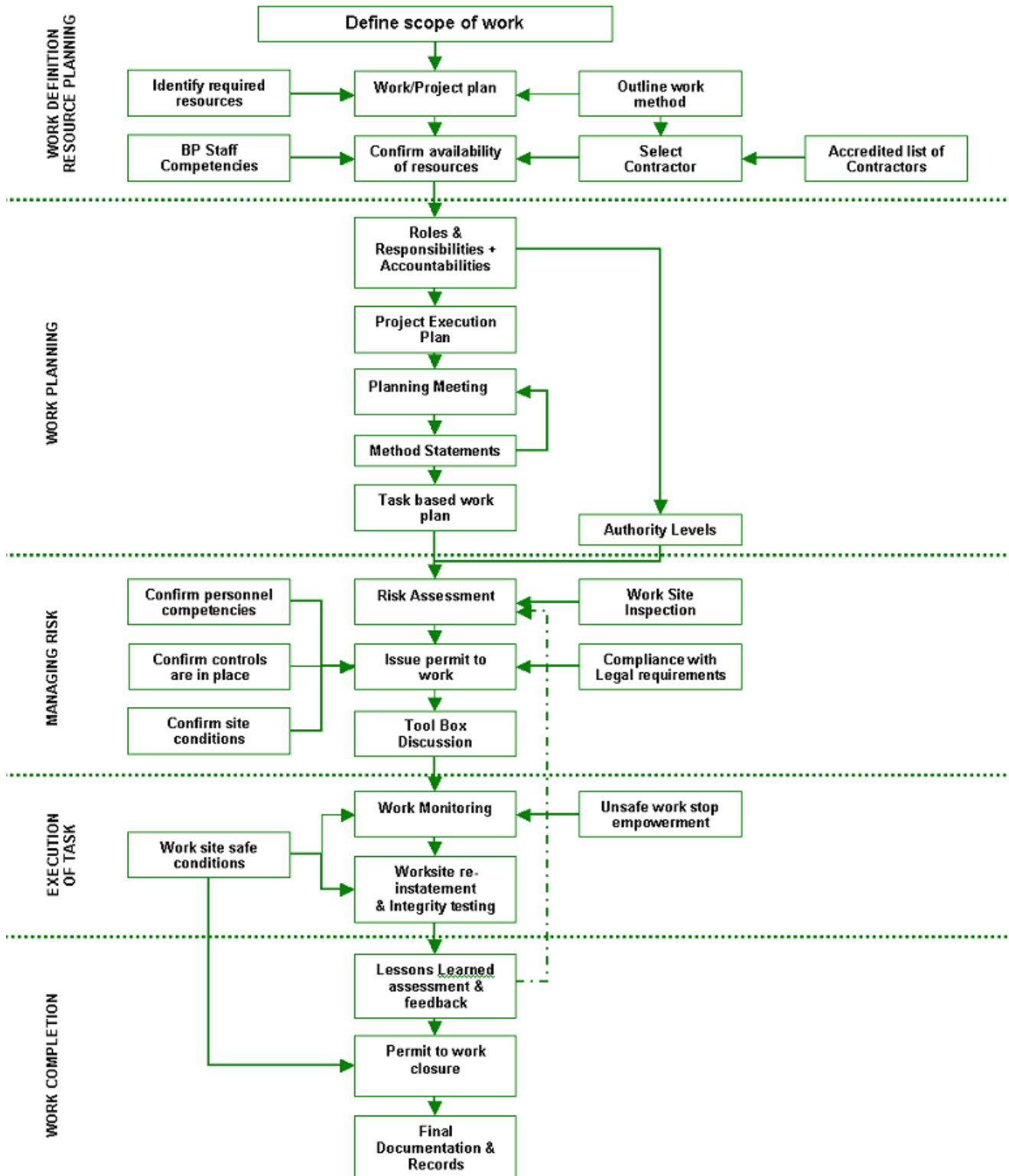
3.12.5 Reporting of stoppage of unsafe work

Any work that is stopped because of safety concerns shall be reported immediately to both the IA and the Site Manager and shall be investigated and the results recorded.

A near miss report shall be completed for the unsafe work by the person who has stopped the work

Control of Work

APPENDIX 1: COW FLOWCHART



APPENDIX 2: CERTIFICATE OF COMPETENCY



Certificate of Competency

Air BP Permit to Work System

This is to certify that

XXXX

Location: xxxxxxxxxxxx

Has successfully completed training and theoretical examination of the Air BP Permit to Work System and is hereby granted the status of

Permits Issuing Authority Level X

Under the guidance issued in Air BP Permit to Work documentation (activities detailed overleaf)

Competency Level Achieved: x

Signed:

Global CoW Authority (only required for PU CoW Authority Level 2)

Date:

Delegation of authority is granted in consideration of the above

Signed:

Name:

Title: PU Operations Manager

PU CoW Authority

Date:

Delegation of authority accepted in consideration of the above

Signed:

Date:

Name:

Title:

Certificate Issue date.

Xx xxx 201X

THIS CERTIFICATE SHALL ONLY BE VALID FOR THREE YEARS FROM DATE OF ISSUE.

APPENDIX 3: PLANNING NON-ROUTINE WORKS

Non-routine works are subject to a degree of formal work planning in advance of the works being executed.

1 EXECUTION PLAN

An execution plan is required to provide the general outline for the method of undertaking the work. It should identify the main activities required and make people who are not directly involved in the work aware of the intentions.

- High level planning involves answering some basic questions, such as:
- Why (is the work required)?
- What (work will be performed)?
- (will the work be performed)?
- When (will the work be performed)?
- Who (will perform the work)?
- How (will the work be performed)?
- Which tools and materials (will be used)?
- What is the extent of the preparatory works to make the job safe?
- Which energy sources (will be isolated)?
- Developing the execution (work) plan in this way will provide the following benefits:
- Up-front consideration of HSSE implications.
- Identification of the actual methods of work execution.
- Highlighting of any simultaneous/sequential operations.

2 PLANNING MEETING

Following preparation of the execution plan and receipt of any comment on the proposal, a planning meeting will be convened with all the principal parties involved in the work.

The planning meeting typically occurs early in the process and well in advance of permitting; planning meeting should not be confused with the site meeting held between operations, project and contractors immediately before work being carried out on a site.

Planning meeting deliverables

- Method of how the work will be done.
- Start and finish time for the work.
- Resources and arrangements that need to be in place before start of work.
- Notifications/approvals (permits/licenses required).
- How planned activities will influence operations on site.
- Problems associated with the planned activities.

- Planned shut downs.
- Restricted access.
- Identification of low risk alternatives to doing the work.
- HSSE requirements.
- Emergency Response Plan

The most frequently overlooked issues during work planning involve the need for written procedures and RA.

Planning meeting may typically consist of the following attendees:

- Project Manager or person initiating the work.
- Site Manager and Site Representative (IA)
- PA (contractor or BP).
- Other people who can be involved depending on the nature of the work, e.g. HSSE Manager (for high risk activities), Engineering Authority (EA) and Subject Matter Experts (SME) for specialist advice.

The PA should bring an outline plan for the proposed work to the planning meeting. The following should be discussed and agreed:

- Location of the work site, site layout and work site boundaries.
- Site HSSE requirements (e.g. site induction for personnel, emergency procedures, PtW, BP GRoS).
- Applicable Site Safe Working Practices, as detailed in the GEN 51 series of documents, should be used to establish the minimum Air BP expectations. A list of Site Safe Working Practices are attached in Appendix 8.
- The PA has read GEN 10 and agrees to the guidance contained therein.
- Initial assessment of the proposed method of work.
- Proposed use of equipment.
- How planned activities will influence operations on site and any foreseeable conflict between the works, other CoW activities and operations.
- Requirement for special licenses and external permits.
- Resources and arrangements that need to be in place before start of work.
- Planned shutdown requests.
- Access restrictions.
- Emergency response plans for the work activities.
- Identification of low risk alternatives to doing the work.
- Air BP / Contractor supervisor/ worker competency requirements (specific requirements for the works).
- Names and titles of people responsible for HSSE matters/CoW.

- Names and titles of people undertaking the works.
- Estimated duration of work.
- Estimated starting and finishing dates, to include times required for completing permits.
- Proposed start/ finish times on site and day during the week to be worked.
- Estimated size of site workforce.
- Training and qualifications of workforce (e.g. respiratory protection training, Confined Space Entry training, gas tester training and calibrations, hazard communication).
- Location for Contractor's cabins, materials, plant and equipment.
- Contractor's welfare arrangements.

Planning meeting minutes should be kept and significant actions recorded

Planning documents

Typical documents used for the planning meeting include:

- Project Statement of Requirements (SoR).
- P & IDs and other drawings/documentations
- Project Schedule and Work Plan.
- Project Health, Safety, Security & Environmental Reviews.

3 METHOD STATEMENT PREPARATION

A MS is required for all work that does not have risk assessed task breakdowns or procedures.

Why do we need to prepare method statements?

MS demonstrates proactive, pre-job thinking by the Performing Authority (PA) and Site Manager.

- Helps people involved in the task understand the job.
- Helps identify the hazards in the execution of the tasks.
- Provides written information required for RA.
- Helps ensure emergency situations are identified and planned for
- A good MS will ensure that the Site Manager, supervisor etc. fully understand how the job will be carried out. This in turn allows the Site Manager to fully assess the impact that the job will have on their operation and ensure that the risks are managed.

When do we need to prepare a method statement?

A method statement is required every time an activity that is not covered by a task breakdown or procedure is being carried out.

Who prepares a method statement?

The PA prepares the MS with input from (amongst others):

- The people who will be involved in performing the tasks.
- Those with expertise and specialist knowledge on the task.
- People who are familiar with the site and know the site conditions.

Contents of a method statement

The MS should be relevant and specific to the job and not generic, though a generic document may be used to develop the job / site specific version. The amount of detail will depend on the complexity of task to be performed and should include, as a minimum, the following:

- Reason(s) for the proposed work.
- Description and location of the work, including duration of work.
- Method of work including equipment and materials to be used.
- Work activities broken down into tasks, with sequence of tasks indicated.
- Number of people working on the tasks.
- Hazards identified to be incorporated into the RA.
- Assignment of responsibility for specific hazard/control measures e.g. standby person.
- Changes required to operating and emergency procedures.
- Air BP minimum requirements, e.g. PPE policy, Site Induction

Approval of the Method Statement

The completed MS should be reviewed by:

- Site Manager where the work will take place.
- People who will be doing the work.
- The authority responsible for supervising the work.
- Competent person (CP) and specialist for the activity where required.
- Local agency (where local legislation demands oversight).
- Final endorsement rests with the site or project manager, as appropriate.

Resourcing Plan

Planning activities should always allow for availability of both human and material resources. Availability of personnel to undertake key activities such as planning meetings should be allowed for and scheduled accordingly.

When scheduling the work, it is important to account for the time and resource requirements for RA, preparation of worksite and work permitting.

Breakdown or emergency activities

Breakdown/emergency work by definition is difficult to plan. However, the process necessary to adequately control work activities on these situations remain the same:

- Identify the activity
- Define and split the activity into tasks
- Plan how the activity will be undertaken
- Identify hazards associated with the activity
- RA
- Risk control/mitigation
- Worksite preparation
- Work Permitting
- Work execution
- Reinstatement of equipment & plant
- Return to normal operation

4 Emergency Response Plan (ERP)

The planning process should identify the credible potential emergencies that could occur during the work. More specifically the ERP, based on potential emergencies (and RA findings), shall be in place and proven before work commences and include the specific response plan for the type of work being undertaken. All personnel involved in the work including the rescue team shall be made fully aware of the control measures and emergency response plans and the actions required of them in and emergency

Site meeting prior to WORK PERMIT PREPARATION AND start of work

Prior to commencement of the site works Site Manager/IA, relevant third parties and the PA to discuss and agree upon the CoW matters that are foreseeable for the duration of the activity:

- Any variations to the planning meeting considerations.
- Review of supporting documentation.
- Any limitations on access to areas of the site both for pedestrians and vehicles.
- Any foreseeable conflict between contract work, other CoW activities and operating activities on the site.
- Change in work and site conditions under which work must cease.
- Use of BP services by contractor, such as electric power, compressed air.
- PPE identified is within date for testing and re-certification, and free from obvious defects / excessive wear.
- Approval for proposed use of equipment, including check of certification and free from obvious defects / excessive wear
- Site induction for personnel.
- Incident reporting procedure.
- Emergency procedure, including emergency rescue procedures

- Out of hours contacts.

5 CO-ORDINATION AND PRIORITISATION OF SIMULTANEOUS ACTIVITIES (SIMOPS)

Work activities that are related and are likely to interact and influence one another should be identified and the impact of the interaction understood. It is the responsibility of the Site Manager, Project Manager or the person who is planning the work to coordinate the planning and scheduling of (SIMOPS) and assess to determine whether concurrent activities are likely to give rise to conflict, unsafe conditions or unwanted outcomes.

Any potential SIMOPS hazards should be identified at planning stage (RA), Permit issue process, Job site visit by IA and PA prior to permit issue and controlled by scheduling of tasks (weekly or daily schedules).

The checklist below is to ensure that a simple check of non-routine work on Air BP facilities is undertaken to consider time and resource requirements for the work.

Consideration should include: hazard identification, RA, preparation, planning, identifying simultaneous activities, impact on operations and supervision requirements for the work. When works are dependent on, or affect another activity, they shall be coordinated and prioritized.

This checklist should be completed, (YES, NO or NOT APPLICABLE) prior to non-routine works occurring on site. The checklist should be completed by the person who is planning the works and acts as a basic check / prompt list to ensure that the routine operations and the non-routine works are considered in conjunction of one another. Comments should be sufficiently detailed to explain the selection. The checklist is not an exhaustive list and other questions may be raised and recorded, depending on the non-routine activity or the site.

A 'NO' answer would indicate that the work has not been sufficiently planned and requires further definition / clarification, prior to the non-routine works being considered acceptable to occur.

Control of Work

Appendix 3A: Planning Checklist

This checklist does not replace any HSSE reviews as required by the Capital Value Process (CVP).

Site Location:			
Nature of the non-routine works:			
Name and position of the person completing this checklist:			
Job number (if applicable):		Planned start date for the task:	

Planning the Works		YES	NO	N/A	Comments
1.	Has the Site Manager been made aware of the planned activity?				
1.1	Is it clear who is responsible for scheduling the contractor to be on site?				
1.2	Has the contractor undertaking the non-routine works been assessed as competent?				
1.3	Has a programme for the non-routine works been prepared and are they acceptable to operations?				
1.4	Is it clear to all when the work will start?				
1.5	Does the site have approved persons competent to assess the Method Statement / Risk Assessment and are they familiar with the site?				

Control of Work

1.6	Has a competent person reviewed the Method Statement and Risk Assessment?				
1.7	Has a joint inspection of the work area occurred as part of the planning meeting?				
1.8	Is the site induction material up to date?				
1.9	Are our HSSE expectations clear and understood by the contractor?				
1.10	Will the company undertaking the non-routine work present all certificates for plant, equipment and personnel?				
1.11	Are the PPE requirements for the non-routine works personnel and affected personnel e.g. operations clear?				
Work Area		YES	NO	N/A	Comments
2.	Has the scope of work been defined, and has it been assessed what areas of the site will be affected by the planned work? Is this acceptable?				
2.1	Are the site layout and hazardous zone drawings for the site up to date?				
2.2	Has it been made clear to site management, permit Issuing Authority, Monitoring Authority, operational and contractor personnel where the work area is?				
2.3	Has the work area been physically assessed to understand the hazards related to the non-routine activity as a result of operational activities?				
2.4	Has the worksite been assessed for any preparation works or repair works that may be required at the worksite before the work commences e.g. isolation, drain downs etc.?				
2.5	Has an assessment been made of the routes and ground conditions to and from the worksite? Is the plant and equipment suitable for the ground conditions?				
2.6	Has the area been assessed for underground services? i.e. they do not cause concern for the work activity?				
2.7	Has the route to and from the worksite been assessed for height / width restriction e.g. overhead power lines, pipes etc?				
2.8	Are pedestrian routes and vehicle / plant route segregated to and from				

Control of Work

	the worksite?				
2.9	Has an area been identified such that the material lay-down / work area will be situated within a non-hazardous zone?				
2.10	Has the requirements for a quarantine area for damaged tools, plant and materials been considered?				
2.11	Is storage of gas bottles, flammable substances and materials in a non-hazardous zone?				
Simultaneous operations		YES	NO	N/A	Comments
3.	Has the scope of work been reviewed to establish that it does not coincide with other planned works on the site, such as operational maintenance or the works can be managed to occur simultaneously?				
3.1	Has the programme of key activities been reviewed in conjunction with site operations and is it acceptable?				
3.2	Are regular meetings planned to occur between all the non-routine works and operations?				
3.3	Will the work activity occur over more than one shift, is the communication between one shift to another agreed?				
3.4	Does the operation have a contingency plan if there is a delay in completing the non-routine work?				
Personnel		YES	NO	N/A	Comments
4.	Is it understood how many personnel will be on site to do the work at any one time?				
4.1	In some cases it is appropriate to limit the number of personnel working in an area, is the number of people planned acceptable?				
4.2	Will personnel be available to carry out the required number of inductions and is there sufficient time allocated in the programme for site inductions?				
4.3	Are there enough monitoring authorities available?				
4.4	Are there enough permit issuing authorities available?				
4.5	Does the contractor have enough supervisors?				

Control of Work

4.6	Does the site have issuing authorities competent to produce Work Permits for all elements of the non-routine activity?				
4.7	Are the site issuing authorities / monitoring authorities competent to monitor the works?				
4.8	Are the requirements for disposal of waste understood and assessed?				
4.9	Has the requirement for more facilities i.e. drying rooms, washrooms, canteen been assessed?				
4.10	Is there enough parking for private vehicles? Are arrangements in place to limit the quantity of vehicles if parking is a problem?				
The Emergency Plan		YES	NO	N/A	Comments
5.	Has the site emergency plan been reviewed in view of the non-routine work activity? Have updates been included (if required)?				
5.1	Have external authorities been informed of the non-routine works and where required, approvals obtained? Note. External authorities can be a range of people, but in executing the works this can also include local emergency services, fire brigade etc.				
5.2	Are the contractor temporary facilities in a safe location?				
5.3	Is an emergency exercise planned as part of the non-routine works e.g. to test the rescue plan?				
Other		YES	NO	N/A	Comments

APPENDIX 4: AUTHORITY LEVEL – WORK ACTIVITY MATRIX

APPLICABLE Golden Rules of Safety(GRoS)	ACTIVITY UNDERTAKEN	ACTIVITY LEVEL			RELEVANT NOTES
		1	2 Medium Risk	2 High Risk	
	Workshop operations	Individual hazardous activities not covered by the list of standard workshop activities	Blanket Work Permit for standard list of workshop activities	Unlikely for activities considered appropriate for workshop	Blanket Work Permit covers all activities that have been listed and risk assessed for workshop activities
	Diving operations	Not authorised	Not authorised	All activities	
	Asbestos, lead sludge or lead paint removal	Not authorised	All removal activities	N/A	Specialist expertise required
	Demolition of facilities	Dismantling or cold cutting	Shearing or breaking operations	Controlled collapse	
	Working in/with Nitrogen atmospheres	Not authorised	Not authorised	All such work (e.g. pigging, purging)	
	Radioactive sources	Instrumentation work	Local radiography	Extensive radiography	Specialist expertise required Local Radiography - X ray / Gamma shots at grade over one shift (source not stored on site overnight) Extensive Radiography - X-ray / Gamma shots at height (5m and above) and over more than one shift and /or when the source is stored on site.
	Concrete breaking/cutting	In 'safe' areas	In 'hazardous' areas	N/A	Safe and hazardous as in Electrical Safety Classification

Control of Work

APPLICABLE GRoS	ACTIVITY UNDERTAKEN	ACTIVITY LEVEL			RELEVANT NOTES
		1	2 Medium Risk	2 High Risk	
	Water jetting	Jet pressures < 150 bar	Jet pressures 150 – 1500 bar	Jet pressures > 1500 bar	As used for tank bottom cleaning instead of grit blasting; this is not steam cleaning. Also sometimes used for other cleaning.
Confined Space Entry	Personnel access to restricted ventilation space	Not authorised	Tank entry – leaded & unleaded	Tank entry through Man-ways < 600mm	Leaded entry requires Octel training. As an alternative to entry where <600mm man-ways exist, can a site specific waiver be requested or can an appropriate inspection or cleaning be performed externally.
	Below ground spaces	Not authorised	All, including valve chambers	N/A	
	Equipment entry	Not authorised	Uncomplicated escape	Difficult escape	If there is a risk of a rescue harness snagging, e.g. on baffles, then the escape is difficult
Energy Isolation	Electrical work	Low Voltage < 1000V	High Voltage >1000 V	N/A	Procedures specified in the Electrical Rules ELEC 50 shall be followed.
	Work on live electrical equipment with the risk of electrocution	Basic testing activities outside Hazardous areas	Basic testing activities within Hazardous areas Work on distribution boards	Work on transformers, electrical incomers etc.	
	Process piping	< 19 barg	> 19 barg	Hot tapping	

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	Pressure/leak testing	Hydrostatic (water) & Fuel < 31 barg	Hydrostatic (water) & Fuel > 31 barg Air < 5 barg	Air > 5 barg Nitrogen or other gases	
	Vehicle hydraulics (typically 200 bar)	All activities	N/A	N/A	

APPLICABLE GRoS	ACTIVITY UNDERTAKEN	ACTIVITY LEVEL			RELEVANT NOTES
		1	2 Medium Risk	2 High Risk	
Energy Isolation (cotd.)	Vehicle pneumatics (typically 7 bar)	All activities	N/A	N/A	
Ground Disturbance	Excavations without personnel entry	< 1.2 m deep	> 1.2 m deep > 3 m proximity to HV cables	< 3 m proximity to HV cables	Shall have relevant knowledge of services clearance and ground disturbance
	Boring, piling, micro-tunneling, horizontal drilling etc.	Cone penetration tests	All boring & piling etc.	Survey for explosive ordnance	
Hot Work	Welding, grinding, grit blasting, drilling etc.	In 'safe' areas and non-fuel sites (e.g. new construction)	Within 'hazardous' areas	In confined 'hazardous' spaces	Safe and hazardous as in Electrical Safety Classification
	Unauthorised vehicle/plant entering into hazardous area	N/A	In 'hazardous' areas	N/A	'Authorised vehicles' are authorised by the Site Manager and typically would include fuelling and maintenance vehicles without gasoline/petrol engines. Vehicle entry may be covered by method statement. If there is a risk of a potentially flammable atmosphere, gas testing shall occur.
Lifting	Within operating facilities	Use of forklift	Use of cranes	Complex lifts, e.g.	Crane rating = maximum lifting

Control of Work

Operations		<u>Not</u> Use of cranes	including; simple lifts and lifts over fuel containing equipment/pipe work or electrical distribution	tandem or using a crane to lift personnel	capacity at radius Forklifts may be covered by a standard operating procedure
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APPLICABLE GRoS	ACTIVITY UNDERTAKEN	ACTIVITY LEVEL			RELEVANT NOTES
		1	2 Medium	2 High	
Lifting Operations (cotd)	Near limit of cranes SWL at radius	Not authorised	Not authorised	For loads \geq 80% of crane SWL at radius	
Working at Heights	Portable Staging Mobile Elevated Working Platform (e.g. boom lift, scissor lift)	Work @ < 5 m	Work @ > 5 < 18 m	Work @ > 18 m	Working within a fixed platform, e.g. tank top or completed scaffolding, is not a Work Permit activity Shall ensure ground conditions are assessed for the equipment. Shall have relevant Working at Heights training applicable to equipment.
	Working over water	Not authorised	All work over water		
	Abseiling/rapelling	Not authorised	Not authorised	All activities	

APPENDIX 5: COMPETENCY & TRAINING REQUIREMENTS

ROLE	QUALIFICATIONS	EXPERIENCE	KNOWLEDGE	CoW TRAINING
Global CoW Authority	Engineering or Project Management qualification recognised by a professional body.	CoW in operations environment Experience in managing contractors. Relevant experience in managing a PtW system.	Air BP Regulations & Standards National statutory regulations relating to CoW & PtW.	BP & Air BP CoW, TRA & PtW
PU Operations Manager	No specific requirement	CoW in operations environment.	Air BP Regulations & Standards. Incident investigation & Reporting	Air BP CoW
Site Manager	No specific requirement.	Team management. Working with contractors.	Air BP Regulations & Standards. Local statutory regulations. Detailed knowledge of the site being worked on.	Air BP CoW, TRA & PtW.
PtW Issuing Authority (IA)	No specific requirement.	Relevant experience in managing a PtW system. Working with contractors. Issuing of three in-date Work Permits for specific work risks.	Air BP Regulations & Standards. Local statutory regulations. Relevant knowledge of the site being worked.	Air BP CoW, TRA & PtW. Specific training for Authority Level.
Performing Authority (PA)	No specific requirement.	Supervision of the trades	Working knowledge of the trades being undertaken	Site Induction
Monitoring Authority (MA)	No specific requirement.	Appropriate to supervising responsibilities (determined by IA)	Relevant knowledge of the site being worked.	MA Briefing Pack

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Authorised Gas Tester (AGT)	No specific requirement.	Supervision of the trades	Local statutory regulations. Working knowledge of Gas Tester equipment. Relevant knowledge of the site being worked	AGT specific training by recognised agent, assessed as competent and authorised to use gas detector equipment
Trainer for CoW / PtW	Professional Training / Train the Trainer Certificate	Experience of Work Permit application in operational environment.	National statutory regulations relating to HSSE, CoW & PtW	Air BP CoW, TRA & PtW, specific to training level.

APPENDIX 6: AIR BP COW ASSESSMENT CHECKLIST

The attached Checklist shall be used to assess whether a PU / Site CoW process meets the essential requirements of the Air BP CoW Practice and Operating Management System (OMS) Group Defined Practice for CoW; GDP 4.5-001. If an answer to any of the questions is 'No' the system may need to be reconsidered and changed.

Comments should be recorded to ensure the review identifies current status at the time of the review; to aid gap closure plans, future reviews, when revisiting the review and inputting into PU reviews.

Each PU/Country should check their CoW process against this checklist and report the findings to the Global CoW Authority for further review. The Checklist may also be used as a 'gap analysis' tool for an individual site. A separate blank Word document containing only this Appendix is available on the intranet; <http://airbp.bpweb.bp.com/en/technical/document-library/specs-guidelines/general/general.aspx>

General Information

PU		COUNTRY/FACILITY	
ASSESSOR/S		DATE OF ASSESSMENT	
REASON FOR ASSESSMENT		LANGUAGES IN USE	

1	<i>A written procedure shall exist describing the CoW Process.</i>			
Intent:	To ensure that every CoW procedure has been issued in accordance with a Document Control Management System and that any changes or developments are subject to a formal MoC control process before authorization and adoption.			
Clarifying Questions:		YES	NO	COMMENTS
1.	Does the PU / Site use GEN 3 as the basis for its CoW / PtW process, and are they readily available?			
2.	Is there a PU Document Control Management System (DCMS) in use to manage the CoW / PtW process for advice to Site?			
3.	Have the documents been translated (where required) and available for those responsible for the CoW process in PU / Country / Site?			
4.	Is there one CoW process in use at this Site?			
5.	Does a Site procedure or instruction clearly state where CoW will be applied at this Site?			

Control of Work

6.	Do all Site CoW & PtW documents (e.g. work permit forms) have a DCMS reference and version number on them? Are the current versions being used?			
7.	Does the process meet the requirements of GEN 3? Note that any deviations /exemptions to the CoW process in PU / Site, have to be detailed and approved as detailed in GEN 3, Section 0.4.			

2	<i>All identified roles within the CoW Process shall have defined accountabilities.</i>			
Intent:	To ensure that all roles and responsibilities required to operate the CoW Procedure are identified; articulated to the designated persons; and that those persons are competent, authorised and auditable evidence is available.			
Clarifying Questions:		YES	NO	COMMENTS
	Is there a document which clearly describes the different roles and responsibilities for CoW / PtW at this Site?			
	Is there auditable evidence that the roles have been delegated this authority?			
	Have the people delegated these authorities demonstrated their understanding of the role responsibilities by written acceptance?			
	Are individual IA authorisation levels (including specific authorisation of activities) displayed on Site?			

3	<i>All persons involved in the CoW Process shall be appropriately trained and competent to carry out their roles.</i>			
Intent:	To provide assurance that everyone involved with the CoW Process has the required training and have reached the level of competence required to ensure correct application of the process.			
Clarifying Questions:		YES	NO	COMMENTS
	Are all the people filling the roles described in section 3.2 been trained for their role?			
	Does the training include an assessment of the level of knowledge obtained?			
	Are training records kept and are they used to update people's competencies?			
	Is the training carried out by accredited trainers?			

Control of Work

	Are the people involved in the CoW / PtW Process experienced (or supervised while gaining experience) in their roles?			
	Are people undertaking refresher training programmes for the CoW / PtW Process and re-assessed every two years?			
	Are the competence levels for all persons involved in CoW on Site / PU regularly checked and audited by CoW Authority?			
	Does the training cover:			
	• 12 Elements of CoW			
	• Air BP Permit to Work System			
	• Risk assessment			
	• Lockout Tag out (Isolation of Energy) Systems			
	• Country specific legal responsibilities for HSE			
	• Mandated elements (for level 2)			

4	<i>Planning and scheduling of work shall identify individual tasks and their interaction.</i>			
Intent:	To ensure that planning and scheduling of work delivers an integrated planning function, which accurately reflects the work to be carried out, the use of resources and the time period required to ensure the safe completion of work.			
Clarifying Questions:		YES	NO	COMMENTS
1.	Are safety considerations a regular part of work planning on Site?			
2.	Are work jobs always broken down into the component tasks?			
3.	Are individual tasks planned and scheduled? Are there documented examples on Site?			
4.	Is there a process in place to ensure dependent work or other linked activities are checked against other tasks for incompatibility (during planning, scheduling and implementation)?			
5.	Does the Work Planning take account of the CoW tasks (e.g. risk assessment, preparation, work permitting, safe completion etc.) and the time required to complete and review these?			
6.	Is there a requirement for a planning meeting before any work is undertaken?			

Control of Work

7.	Is there a requirement for method statements to be forwarded from contractors and pre-job risk assessments to be carried out prior to work beginning?			
8.	Are method statements prepared for non-routine work activities? Are these reviewed, updated and then formally signed off by the PA and the IA?			
9.	Is an authorised IA available when planning and scheduling the task?			
10.	Review an accepted method statement(s) on Site; does it accurately detail;			
	<ul style="list-style-type: none"> • The proposed work 			
	<ul style="list-style-type: none"> • Location and duration of the work 			
	<ul style="list-style-type: none"> • Number of people doing the task and their required competencies 			
	<ul style="list-style-type: none"> • Method of work, equipment and materials to be used 			
	<ul style="list-style-type: none"> • The work broken down into tasks and the sequence of the tasks 			
	<ul style="list-style-type: none"> • Hazards identified to be incorporated into the RA 			
	<ul style="list-style-type: none"> • Changes to the operating and emergency procedures (if required) 			
	<ul style="list-style-type: none"> • PPE requirements 			
	<ul style="list-style-type: none"> • Name & Signatures of the various parties who have written, reviewed and accepted the MS 			
	<ul style="list-style-type: none"> • The effect of other works / activities on the Work Permit task. 			
11.	Are accredited contractors used for maintenance and other planned works on Site?			

Control of Work

5	<i>Tasks shall not be conducted without being risk assessed.</i>			
Intent:	To ensure risk assessment is conducted and is capable of coping with various levels of complexity, dependant upon the hazards, likelihood of those hazards being realized and the extent of the controls and mitigation needed to ensure that the work can be completed safely.			
Clarifying Questions:		YES	NO	COMMENTS
	Is a weighted risk assessment process in use (e.g. Air BP Risk Assessment) on Site?			
	Are routine tasks identified and documented via risk assessed Site Specific Task Breakdowns (SSTB)?			
	Are all non-routine activities which do not have SSTB risk assessed prior to a work permit being obtained?			
	Review two recent risk assessments (1 x low risk activity + 1 x higher risk activity);			
	Does the risk assessment detail; work location, review team, revision history?			
	Does this process take into account the varying levels of complexity of tasks?			
	Is the work site inspected by a competent person before the Risk Assessment is completed?			
	Does the Risk Assessment provide a suitable process to ensure the hazards, their elimination, substitution, control and mitigation are properly covered?			
	Are all the hazards, controls and mitigations recorded during the Risk Assessment process?			
	Did a representative of the work force performing the task participate in the Risk Assessment?			
	Did an Operations representative participate in the risk assessment?			
	Are potential emergencies considered and response plans assessed?			
	Does the risk assessment have an acceptably low level of residual risk, and was this accepted by a competent person?			

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	Are the results of the Risk Assessment recorded and signed off by those involved?			
	If risk assessments are re-used, are they reviewed by the appropriate people each time?			
	Are records of tool box meetings kept for review? Are they signed by all members of the workforce?			

6	<i>Before conducting work that involves confined space entry, work on energy systems, ground disturbance, hot work or other hazardous activities, a Work Permit (WP) shall be obtained</i>			
Intent:	To ensure that a formal process of permitting is utilized for the specific high risk work mentioned above and to allow such work to be safely carried out using the appropriate level of control.			
Clarifying Questions:		YES	NO	COMMENTS
	Is there an electronic / paper WP system in use on Site?			
	Is it documented when a WP is required on site? Does this meet the requirements of the Air BP CoW procedure?			
	Review a completed WP(s) on Site; did they;			
	• Define the scope of work, location and its duration?			
	• Identify the likely hazards and sources of energy that require isolation and reference the risk assessments?			
	• Identify the method of work / reference the method statement?			
	• Identify the isolation of energy sources required for the safe completion of the task (refer also to the isolation certificates) ?			
	• Ensure that common isolations covering multiple WPs were not removed until all the relevant WPs have been signed off?			
	• Establish control measures to eliminate or mitigate the possible risks?			
	• Link the work to other simultaneous operations or associated WPs?			
	• Specify who will perform the work, and ensure they understand the risks and controls?			
	• Require authorisation, validation and specify monitoring from the			

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	responsible person?			
	<ul style="list-style-type: none"> Ensure that the above requirements are communicated to all involved in the work? 			
	<ul style="list-style-type: none"> Ensure adequate control over the return to normal operations? 			
	<ul style="list-style-type: none"> Have sign off by an authorised IA and PA? 			
	Does a competent person check (inspection and review certification) all the equipment (including PPE) prior to work commencing and is there a system in place for continued inspection?			
	Is the work-site subject to an inspection by a competent person before WP issue, to ensure that conditions have not materially changed since the Risk Assessment was performed?			
	Are blanket work permits utilised at site? Are the task covered under blanket work permits appropriate?			

7	<i>The scope, hazards, controls and mitigations shall be communicated in writing and signed off by all involved in the task.</i>			
Intent:	It is vital for the safe execution of work that everyone involved is acquainted with the identified hazards; the likelihood of those hazards being realised; and the controls and mitigation actions that have been applied in order to reduce the possibility of an incident or accident.			
Clarifying Questions:		YES	NO	COMMENTS
	Does the IA communicate, and confirm, with the PA:			
	<ul style="list-style-type: none"> The scope and requirements of the WP? 			
	<ul style="list-style-type: none"> Any adjacent activities and hazards; and the initial emergency actions? 			
	<ul style="list-style-type: none"> That they have been shown the correct, clearly identified, equipment? 			
	<ul style="list-style-type: none"> That they can clearly identify when changes in the work environment mean that all activity has to cease until a re-assessment has been completed? 			
	<ul style="list-style-type: none"> That a copy of the WP shall be kept at the work site at all times? 			
	Are all those involved in the work informed of the nature of the work and the potential hazards and mitigation controls?			
	Do all the work force agree (i.e. by signing the WP) that they have been			

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	informed?			
	If a live permit is in force on Site; are the controls and mitigation actions being followed by the work force?			
	If a live permit is in force on Site; is the permit displayed at the workplace and an accurate and up to date list of live WPs kept at a designated location?			
	Does the WP list include a register of the isolations, overrides and inhibits that are in use?			
	Do those performing work at remote locations:			
	• Have the skills and competence to assess the hazards, controls and mitigations?			
	• Have the skills and competence to perform the required work?			
	• Establish and maintain regular communication with the IA?			
	• Validate the WP requirements with another competent person (MA)?			
	Are Operations and other relevant personnel informed of the impact of the work and do they understand it?			
	Are personnel (Operators, visitors, other contractors) informed prior to the commencement of the permitted work?			

8	<i>All on-going work requiring a Work Permit (WP) shall be regularly monitored and managed by a responsible person.</i>			
Intent:	To protect those completing the work it is essential that competent persons regularly visit and inspect the work site to ensure that the conditions detailed on the WP have not been compromised; that only the work as described on the WP is carried out and the work is continuing in a safe manner.			
Clarifying Questions:		YES	NO	COMMENTS
1.	Is there evidence that the work was monitored by the IA (or MA)?			
2.	Is the frequency of monitoring defined on the permit and does it reflect the level of risk associated with the task?			
3.	Where an MA has been utilised have they been suitable for the scope of the WP(s) viewed on Site?			
4.	Is it clear who is responsible for monitoring (IA / MA) on the permit? Is the monitoring documented?			

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5.	Before work re-commences after any interruption, are the site conditions and appropriate control measures reassessed (including the WP)?			
6.	Before work recommences after a shift change, do the hand-over arrangements include details of the status of continuing work?			
7.	Is work always carried out within the conditions of the WP?			

9	<i>The work site shall be left in a safe condition on completion or interruption of the work.</i>			
Intent:	On completion or interruption of any work activity, it is essential that prior to the WP being closed, the work site is visited by a competent person to ensure that no potential sources of accidents remain and that the equipment can be safely brought back into service without incident.			
Clarifying Questions:		YES	NO	COMMENTS
1.	On work completion, is the work site visited, inspected and deemed safe before the work permit is signed off by a competent authority (IA & PA)?			
2.	Does the closure of the permit consider all the work including de-isolation, reinstatement and testing of the system integrity before sign off?			
3.	On non-emergency work interruptions (breaks / end of day) is the work site left in a safe condition?			
4.	After an emergency work interruption, are all the WPs re-assessed and re-issued before work recommences?			
5.	When the work is complete, is the WP signed off by the PA / IA?			
6.	Are permits retained on site for 3 years?			

10	<i>The CoW Process shall be subject to a program of regular auditing.</i>			
Intent:	In order to maintain a consistent high standard of CoW process application, it is essential that a program of regular auditing be established. The audits should review and make recommendations for improvements on the correct application of the CoW Process, including all documentation, controls, training and competency. Any discrepancies noted should be communicated to the Site Management with a requirement that corrective action plans are developed and that actions are closed out in a timely manner.			
Clarifying Questions:		YES	NO	COMMENTS
	Have audits on the CoW/ PtW process been undertaken regularly in PU /			

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Country?			
Has a CoW/ PtW audit been undertaken on Site?			
Are individual WPs (both live and closed) regularly audited for the Site?			
Are the results of the audit fed back to Site Management & PU CoW Authority?			
Are audit actions recorded and tracked?			
Have all previous audit actions been closed out?			

11	<i>Internal and external lessons learned that impact the CoW Process shall be captured, incorporated, and shared.</i>			
Intent:	To ensure that any learning's on how to improve the CoW Process and the safe means of carrying out work are made available to and used by all facilities across the BP Group.			
Clarifying Questions:		YES	NO	COMMENTS
1.	Is there a process in place for external lessons learned to be forward to those that issue WP on site?			
2.	Is there a process in place for local lessons learned to be forwarded to others (CoW Authorities) and the wider BP community?			
3.	Can the site provide and example of when a lesson learned, and was this forwarded to others (Country / PU)?			

12	<i>The CoW Procedure shall make it clear to everyone that they have an obligation and authority to stop unsafe work</i>			
Clarifying Questions:		YES	NO	COMMENTS
1.	Are personnel made aware that they have an obligation to stop work that they consider unsafe on Site?			
2.	Does the WP include, 'if unsafe, stop work'?			
3.	Are there recent examples on Site of stopping works that are unsafe? Where appropriate, were these lessons learned forwarded to others (CoW Authorities)?			

APPENDIX 7: FORMS COMMONLY USED IN AIR BP PERMIT TO WORK SYSTEM

PtW documentations shall be available in the language appropriate for personnel involved in the PtW approval process. Other means (i.e. translators) may be necessary to promote clear understanding.

There is no requirement to have separate Work Permit forms for General/Cold Work and Hot Work as the level of rigour is applied to the RA, MS and level authority for Work Permit approval. It is permissible for PUs/Countries to have separate forms and, if colours are used to identify types of Work Permits, red should be reserved for Hot Work permits. A separate form may be required for both Confined Space Entry Permit and Gas Free Certificate. Energy Isolation can be included in the Work Permit.

1 GENERAL WORK PERMITS (COLD PERMITS)

A general Work Permit is required for general/cold work to be carried out, or for the use of any tools or equipment that will not produce a source of ignition. It includes tools used for maintenance, cleaning, erection and dismantling which are not liable to produce sparks.

It provides for work of a general or maintenance nature, not covered by routine site operating procedures, where there is no requirement for entry into a confined space.

2 HOT WORK PERMITS

Hot Work Permits shall be issued for any work involving actual or potential sources of ignition, where heat is used or generated and is of such intensity as to possibly ignite flammable liquids, gases or other flammable materials, and where there is a potential for hazardous atmospheres to be present, or on equipment that has contained petroleum products where naked flames, sparks or heat may be generated. It includes the use of any tools not approved for use in hazardous areas.

The definition of Hot Work includes welding or the use of any flame or electrical arc or the use of any equipment likely to cause heat, flame or spark.

The need for a Hot Work permit indicates that the work has a higher degree of risk and the IA must consider this in the RA and the measures that need to be taken in order to lower the risk to ALARP / Low.

The Work Permit shall include any cold work associated with the Hot Work.

3 CONFINED SPACE ENTRY PERMITS

Confined Space Entry shall only be undertaken if all other options have been ruled out.

A Confined Space Entry permit covers the safety of the work environment only and, if Confined Space Entry is required a Confined Space Entry Permit shall be accompanied by a Work Permit, and valid Gas Free Certificate. Continuous gas monitoring shall be performed during all confined space operations, with monitoring in the immediate vicinity of the workers within the confined space and likely sources. GEN 51 part 3 and 4 provides additional information on CSE.

4 GAS FREE CERTIFICATES

A Gas Free Certificate is required when:

Any Hot Work is done in a hazardous area or on equipment/plant which has contained flammable product, or there is a potential for flammable vapours.

When entry is required to any confined space, i.e. for all Confined Space Entry Permits. In this latter case special attention shall be given to percentage oxygen, lead and flammable atmospheres.

Authorised Gas Tester

An Authorised Gas Tester (AGT) is defined as a person who is trained, assessed as competent and authorised to use gas detector equipment. They shall be authorised to test for the presence of flammable vapours, toxic gas and oxygen in support of the permit or confined space entry.

An AGT's training should be provided by the manufacturer of the equipment (or a recognised agent) and should be valid for two years maximum (or frequency required by local legislation).

The AGT remains authorised, subject to the person using the gas tester equipment regularly or at least once every twelve months. Anyone not having used a gas detector in the previous twelve months shall undergo refresher training in the form of supervised equipment re-familiarisation before carrying out gas testing.

If an Air BP AGT is unavailable an independent AGT with gas tester equipment may be used to carry out the initial test, provided there is evidence of their competency and authorised to use the test equipment.

Gas Tester Equipment

There are various types of gas tester equipment that are available. The most common in Air BP are portable, but transportable are also used. In all cases the training on the equipment is imperative to ensure understanding of equipment operation and limitations. The types can be summarised into;

Personal Monitor - a small portable device used to provide personal monitoring for the individual, they are usually lightweight, compact and audible to the wearer. Typically less than 1Kg in weight and suitable for single handed operation. The sensors **must** not be obstructed and if worn, always be worn on the outside of any clothing.

Larger Portable Gas Monitor - a portable device, more rugged in construction usually weighing up to 5kg and designed to protect personnel, the detector may have a direction probe and is placed in the area needing to be monitored.

Transportable Monitors - are not designed to be hand carried for long periods, but can be moved from one place to another to monitor an area for hours or days. They can be used to monitor an area whilst a fixed gas detector is undergoing maintenance.

Calibration of Gas Tester Equipment

Gas monitors are often subject to harsh operating and storage conditions where they can be damaged. Regular calibration is the only way to be certain that a monitor is fully functional. A written record of calibration should be kept for the life of each instrument, the different type of tests can be summarised as;

Zero Test - In all cases before use, the AGT should switch on the gas monitor and note the readings in a gas free area before entering a potentially hazardous area, this test is commonly referred to as the 'zero test' or 'fresh air zero test'.

Bump Test - A bump test verifies calibration by exposing the instrument to a concentration of test gas. If the bump test is not within the acceptable range, a full calibration shall be performed. A bump test should be performed on the equipment at least every 3 months and proven before use for confined space monitoring. During extended works the frequency of testing shall be increased to at least once a week. Legislation requirements and manufactures instruction shall always be adhered to, and

may be more onerous than the frequency detailed here. The bump test can also be referred to as 'functional test' or 'comfort test'.

Full Calibration - Full calibration shall occur at the frequency recommended by the manufacturer (or their authorised agent) this is typically at 6 or 12 monthly intervals or where there is any suspicion of the equipments accuracy. The monitor is usually returned to the manufacture for full calibration, and includes calibration, maintenance checks and instrument recertification.

Bump test on the gas monitor in the field is undertaken using a calibrated gas mixture from a cylinder supplied by manufacturer. The gas mixture used for calibration should contain the same gas in similar concentrations to those being monitored. If there is more than one gas likely to be present, it is advisable to calibrate for the least sensitive gas. For operational aviation sites the major hazard is Avgas, with butane the major component, butane is therefore recognised as the calibration gas.

Specialist knowledge will be required to determine which gas should be used to calibrate the detector as sensitivity may vary depending on the detectors sensor. The calibration gas shall be agreed with the manufacture, based on the products on the sites the detector is to be used on.

Issue of Gas Free certificates

Where gas testing should be carried out, the initial test shall be carried out by an Air BP AGT in the order of 'presence of oxygen', 'presence of flammable vapours' and then 'presence of toxics'. The AGT shall sign the certificate verifying the correct readings noted during testing. After signing the Gas Free Certificate, any subsequent testing, according to the frequencies established on the Work Permit, may be handed over to a trained contractor.

If an Air BP gas tester is unavailable an independent gas tester may be used to carry out the initial test provided there is evidence of their competency.

All gas tests shall be carried out using certified gas test equipment with a valid calibration record/certificate kept with the equipment.

Display of Gas Free Certificate

The Gas Free Certificate shall accompany the Work Permit and/or Confined Space Entry Permit as applicable, and be displayed on the work site with the permit/s until the work is completed or it becomes invalid.

Withdrawal of Gas Free Certificate

The Gas Free Certificate is only valid for the day and shift of issue. The IA shall determine the gas free monitoring frequency and state the requirements on the Work Permit. Recording of the gas monitoring values should be done after each break or at least twice a day, even if continuous monitoring equipment is utilised. If the Gas Testing shows that conditions have deteriorated work shall stop until an investigation of the cause has been carried out and the situation is rectified. The work permit shall then be reviewed and re-endorsed.

If conditions change, work is stopped or the area vacated beyond normal shut down periods, or emergencies arise which affect the permit conditions, the certificate becomes invalid until the area is retested and certificate re-endorsed.

5 ISOLATION CERTIFICATE

GEN 51 part 1 establishes the minimum requirements for the LOTO of equipment. It shall be used to ensure that the machine(s) or equipment are isolated from all potentially hazardous sources of energy, and locked out and tagged out and the isolation tested

before employees perform any servicing or maintenance activities where unexpected energizing, start up, or release of stored energy could cause injury or an incident (e.g. equipment damaged). Conductors and/or parts of electrical equipment that have been de-energized but have not been locked out or tagged shall be treated as energized parts.

The BP Golden Rule on Energy Isolation requires:

The method of isolation and discharge of stored energy are agreed and carried out

By a competent person(s).

Any stored energy is discharged.

A system of locks and tags is utilised at isolation points.

A test is conducted to ensure isolation is effective.

Isolation effectiveness is periodically monitored.

All electrical work shall be carried out or supervised by an Approved Electrician.

When is an Isolation Certificate required?

All energy sources shall be locked and tagged in the off or closed position when maintenance work is being performed by either company or contract personnel. An energy source is any electrical, mechanical, hydraulic, pneumatic, chemical, nuclear, thermal or other energy source that could cause injury to personnel.

Equipment and plant that shall be isolated before work is done on them include:

Machinery – shall be isolated from its power supply (electric, pneumatic or hydraulic) or if engine driven the starting system or engine disconnected.

Pressurised systems of all kinds shall be isolated and depressurised.

Chemical systems – where pipe work, vessels or tanks contain fluid or materials shall be isolated from their sources of supply and drained, purged and decontaminated as necessary.

Electrical systems – capable of causing a hazard to personnel working on it or of igniting a flammable atmosphere shall be isolated and proved de-energised.

Issue of Isolation Certificate

A separate Work Permit may need to be issued for carrying out isolations, e.g. dropping a spool for tank entry. The isolation certificate shall be completed by an authorised person. The isolation certificate/s shall be attached to the Work Permit for the main works when it is issued.

The IA is responsible for ensuring that all equipment is properly isolated (locked and tagged out) prior to work starting. Before the Work Permit for the main works is signed, the IA and PA shall verify that the isolations are in place.

Display of Certificate

The isolation certificate/s shall be attached to the Work Permit for the main works when it is issued and be displayed on the work site with the Work Permit for the duration of the work.

Withdrawal of Isolation Certificates

When the work has been completed and the work area has been checked the Work Permit may be cancelled. The isolation certificate may then be cancelled and the isolation removed.

If an isolation has to be removed temporarily, to allow a test (such as a motor rotation check) to be carried; then the sequence would be;

Work Permit shall be suspended,

Isolation certificate withdrawn,

Test undertaken,

Isolation reinstated,

Isolation certificate re-issued

Work Permit revalidated or may be

APPENDIX 8: SITE SAFE WORKING PRACTICES

GEN 51 SSWP provides guidance and minimum requirement to those who are tasked with the control of work activities on site, where there is no site-specific task breakdown.

Ref.	Issue No.	Issue Date	Site Safety Working Practice Title
Part 01	0	07/07/09	Lock-Out & Tag-Out
Part 02	1	21/05/09	The Construction of New Electrical Installations
Part 03	2	07/12/09	Confined Space Entry
Part 04	2	07/12/09	Tank Cleaning
Part 05	1	20/05/09	Abrasive Blasting
Part 06	0	13/08/09	Water Jetting
Part 07	1	21/05/09	Use of Respiratory Protective Equipment
Part 08	1	19/08/09	Working at Heights or Over Water
Part 09	0	21/12/09	Scaffolding & Staging
Part 10	1	07/10/09	Ladder Management
Part 11	1	05/10/09	Lifting Equipment (Used with Cranes and Forklift Trucks)
Part 12	1	05/10/09	Use of Cranes
Part 13	1	06/10/09	Use of Personnel Lifting Devices
Part 14	0	02/12/09	Steel Erection and Handling
Part 15	0	04/12/09	Facilities Removal and Demolition
Part 16	0	22/07/09	Identification, Removal & Disposal of Asbestos
Part 17	1	08/10/09	Welding and Burning Operations
Part 18	0	03/12/09	Temporary Power Sources and Hand Tools
Part 19	0	23/07/09	Work on Live Pipework (Including Hot Tapping)
Part 20	0	22/07/09	Radiography
Part 21	1	08/10/09	Pressure Testing
Part 22	1	07/10/09	Excavation and Trenching Requirements (including Blind Penetrations)
Part 23	1	09/10/09	Motor Vehicles in Construction and Maintenance
Part 24	0	04/12/09	Material Handling and Storage
Part 25	1	13/10/09	Working with Nitrogen
Part 26	0	29/10/09	Safe Handling of Chemicals and Consumables
Part 27	0	30/10/09	Control of Noise

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Part 28	1	13/10/09	Work On or Near Pipelines
Part 29	0	02/12/09	Traffic Management for Non-Routine Works
Part 30	1	12/10/09	Testing, Repair, Maintenance and Modification of Existing Electrical Facilities