

## WI-A-4.5.1-03

# Drilling into or breaking concrete with hand-held tools to a depth of 100mm not in a hazardous area

Document Owner:	Ian Heath	HSSE Advisor
Approved By:	Suzanne Lucas	Asset Manager
Prepared By:	Ian Heath	HSSE Advisor
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To review changes, refer to the ['Version Summary'](#) at the end of this document.

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## Contents

1. Purpose .....	3
2. Scope.....	3
3. Work Instruction for Drilling into or breaking concrete with hand-held tools to a depth of 100mm not in a hazardous area .....	3
4. Associated Documents .....	7
5. Version Summary .....	7

## List of Tables, Diagrams and Figures

Table 1: Document Version Summary .....	7
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## 1. Purpose

Whenever bp conducts construction, maintenance, demolition, remediation and other similar works that are typical of our industry, there is the potential for harm to people and the environment and for damage to equipment. This document provides a system of work that allows tasks to be completed safely and without unplanned loss of containment with the potential to cause environmental damage or to damage a plant or equipment.

This document supports Control of Works WI-A-4.5.1-01 for the Task Risk Assessment Table (TRAT) and provides, gives instructions for the drilling into or breaking concrete up to 100mm using hand tools not in a hazardous area, occurring on bp New Zealand sites.

## 2. Scope

This work instruction has been created specifically for New Zealand retail construction and maintenance tasks and is not authorized to be used by other areas within bp.

The requirement specified in this procedure applies equally to bp employees, contractors and visitors engaged in New Zealand retail construction and maintenance tasks.

## 3. Work Instruction for Drilling into or breaking concrete with hand-held tools to a depth of 100mm not in a hazardous area

Applies to:	To all personnel (bp or contractor) who drill into or break concrete with hand-held tools up to a depth of 100mm on bp New Zealand retail sites.
Objective:	To safely drill into or break concrete to a depth of 100mm without the requirement for a Ground Disturbance Certificate for this routine task at bp New Zealand retail sites.
Risk assessment:	Level 2 Task Risk Assessment- drilling into or breaking concrete with hand-held tools not in a hazardous area.
Pre-requisites:	To be used only by bp accredited contractors, or sub-contractors engaged through a contractor, who is bp accredited to manage sub-contractors. The contractor using the hand tool shall comply with all relevant requirements of bp procedures and legislation such as licensing, risk assessment, inspection of the equipment prior to use, as is applicable to the task. Persons are to complete the Work Clearance Checklist (WCC) associated with the task. Persons performing the task shall be trained and competent in this procedure with training records kept by their employer and available for audit on request.

1. Complete Work Clearance Checklist (WCC) on arrival to site

**BP OIL NEW ZEALAND WORK CLEARANCE CHECKLIST (v6)**

REPORT ANY SAFETY CONCERNS TO ALL CONTRACTORS AND THE BP SITE REPRESENTATIVE IMMEDIATELY. Everyone has an obligation to stop unsafe work or work that may result in loss of containment causing damage to the environment.

Site name: \_\_\_\_\_ Date: \_\_\_\_\_ BP site reference #: \_\_\_\_\_  
 Company (PCBU) name: \_\_\_\_\_ Permit: \_\_\_\_\_  
 Job detail: \_\_\_\_\_ JSA/Work Plan: \_\_\_\_\_

**QUALIFICATIONS / CERTIFICATION / IDENTIFICATION**

Site safe passport details: \_\_\_\_\_  
 Electrical or plumbing certification: \_\_\_\_\_  
 Driver's License / Passport Number: \_\_\_\_\_

**WORK AREA (Please refer to site plan to identify the work area)**

Shop/floor: \_\_\_\_\_ Road Working Area (Stoplan, Roadwork, etc.): \_\_\_\_\_ Erection Grounds: \_\_\_\_\_  
 Not a Hazardous Area:  Electrical Work/Hazardous (include work within 0.2m):  Confined:

**GENERAL SAFETY**

Are you going to work on any live electrical, stored energy pressure systems, or the electrical control board?  
 If yes, how will you isolate and lock-out the system to make it safe to work on. What extra precautions will you take? 105/700

Will your work involve any ground disturbances?  
 If yes, a BP Permit is required. This includes concrete cutting of the floor/curb at a depth of 100mm or greater. Check for services prior to start. 105/700

Is your work area within a confined space?  
 If yes, a BP Permit is required. This includes tanks, pits, open top tanks equal to or deeper than 2.3m, excavations equal to or deeper than 2.3m, manholes, and rock caverns. 105/700

Can your work involve you being at a height where you could fall 2m (6 feet) or more?  
 If yes, use fall restraint. This can include a mobile scaffold (restraint work platform only), harness, safety edge protection, etc. 105/700

Do you plan to use a crane or heavy lifting device?  
 If yes, a BP Permit is required. Do you have a lift plan or agreed lift procedure? 105/700

Will your work involve being within the sites Hazardous Area Zone (view the site plan to identify)?  
 If yes, a BP Permit is required, if your work involves grinding and cutting, battery work, potential ignition sources. 105/700

**ALL WORK ACTIVITIES**

Could your work at site obstruct any access or egress in an emergency?  
 If yes, consider alternatives. This includes extinguishers, excavation signs, cordoned area, spill kit. 105/700

Is your work going to impact the public, our staff, or other contractors around site?  
 If yes, what signs, barriers and signs do you need to warn everyone? Discuss your work and hazards with them, understand their bus. 105/700

Does the contractor need access to the sites restricted areas, e.g. Offices, IT/S Systems?  
 If yes, what identification is to be provided in the identification section and a work order, email, communication has been received regarding work. 105/700

Will you be carrying out work within any fixed handling, straddling, vehicles, trolleys, and cranes?  
 If yes, contractor must not have been out within the last 60 days. If more additional controls to prevent fuel contamination are found develop? 105/700

Do your activities have the potential to affect food safety/hygiene?  
 If yes, remove or cover food and food contact surfaces. Food should be checked before use. Hand hygiene to be followed at all times. 105/700

**PERSONAL CONTROLS** **ADDITIONAL WORK AREA CONTROLS**

Not relevant to this job		Additional Work Area Controls	
Hard hat	Safety Boots		
Eye Protection	Gloves		
Ear Protection	Head Safety Clothing		
Lock Down Working	Handbook/Personal Protective Equipment		
10-15-20	Other (to be specified)		

**INFORM CONTRACTOR(S)**

Have you informed the contractors of the emergency procedures for your site? 105  
 Have you informed the contractor of deliveries, other work, and site-specific hazards? 105  
 Have you viewed a JSA for this job? 105  
 This must include date, site name, job description, and a written checklist for how to do the job safely and PPE that will be used.

**DECLARATION**

Contractor: \_\_\_\_\_ BP Site Representative: \_\_\_\_\_

To the best of my knowledge I have provided correct information, I understand the conditions of work and will comply with the Health and Safety at Work Act 2015, Road Regulations 2015 and associated legislation, and the site rules (including food safety) requirements while on-site.

To the best of my knowledge I have provided correct information to the contractor, I understand the work that is being undertaken, I understand the risks and the controls to manage those risks are effective.

Print name: \_\_\_\_\_  
 Signature (front of job): \_\_\_\_\_  
 Signature (end of job): \_\_\_\_\_

Print name: \_\_\_\_\_  
 Signature (front of job): \_\_\_\_\_  
 Signature (end of job): \_\_\_\_\_

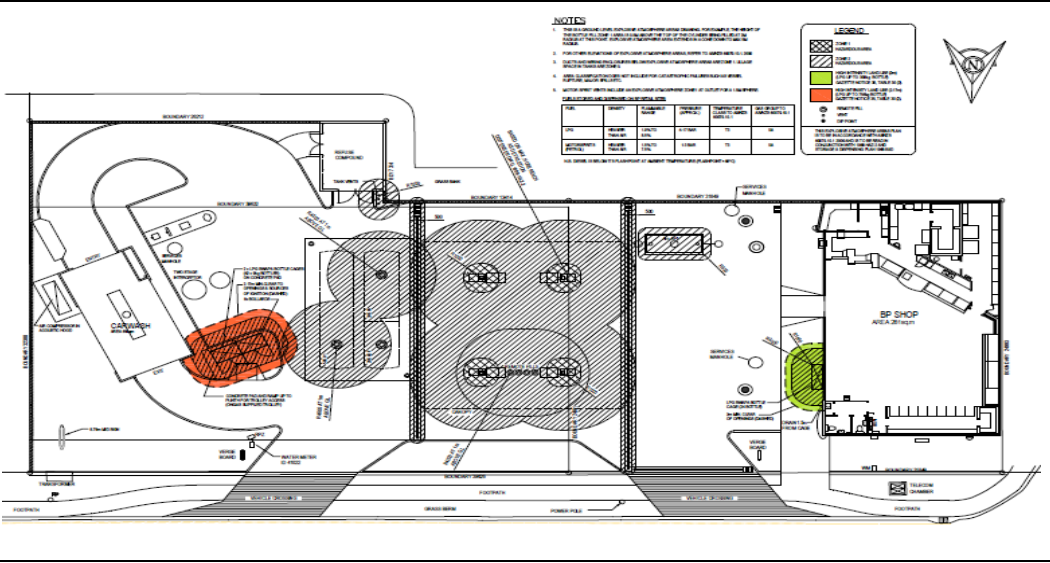
Start time: \_\_\_\_\_ End time: \_\_\_\_\_ Hours worked: \_\_\_\_\_ Work done handed back safe & clear?  YES / NO

Notes - Attach to Contractor Invoice

Report to site. WCC to be completed and signed by both contractor and site representative to authorise the work.

Insert correct details referencing to this work instruction **WI-A-4.5.1-03 for drilling into or breaking concrete with hand held tools to a depth of 100mm not in a hazardous area** and the risk assessment for your task (your contractor SWMS or JSA which includes all relevant hazards and controls for the work to be undertaken (i.e. public vehicles, 3rd parties, barricading, signage, SIMOPS, etc).

2. Confirm proposed location is outside hazardous areas



		<p>Refer to bp site service station hazards map. This map shows all specific hazardous area locations. If the work is to be conducted inside a hazardous area and involves the use of ignition sources then consider if alternative means of completing the task, e.g. in a location outside the hazardous area or the use of alternative tools (e.g. air driven drill instead of a battery drill, with air compressor located outside the hazardous area).</p> <p>If this is not reasonably practicable <b>WI-A-4.5.1-02 Use of battery-operated hand tools in a hazardous area 2 zone</b> may be used by a trained and competent person in conjunction with this work instruction.</p>
3.	<b>Locate services that may affect the work area</b>	<p>Underground service location is required unless relocating masonry anchors within 50mm of existing location to depth no greater than 100mm and diameter drill bit not greater than 12mm. In this specific scenario (only) proceed to step 7.</p> <p>All information available for the site for the potential location of underground services should be obtained including any relevant drawings.</p> <p>Dial Before You Dig shall be contacted to confirm services at the boundary, giving indication of what is coming into the site and where.</p> <p>Any underground service location conducted must be completed by a trained and competent person. The contractor performing this work must supply a SWMS and reference this on the WCC.</p> <p>If underground service location is required to be performed in a hazardous area 2 the following bp work instruction may be used: <b>WI-A-4.5.1-02 Use of battery-operated hand tools in a hazardous area 2 zones</b>.</p> <p>If no one present is trained in that work instruction, a Hot Work Permit is required for the use of battery-operated line locator in hazardous area 1.</p>
4.	<b>Identify services in the work area</b>	<p>The underground service locator shall mark out all known services in the work area on the ground surface prior to the commencement of any ground disturbance work with the correct colour coding to be used to identify the services.</p>
5.	<b>Check for other unidentified services</b>	<p>Visually inspect the work area for services. Even if an underground service locator has been used, some services may have been missed. Look for signage &amp; signs of ground disturbance. Look for services or equipment that may have supply to them passing through the work area.</p> <p>Typical services present on a bp retail site include:</p> <ul style="list-style-type: none"> <li>☑ Electrical power to the site, or mains power through the site.</li> <li>☑ Mains gas supply to the site, or mains supply through the site.</li> <li>☑ Telecommunication cables to, or through the site.</li> <li>☑ bp LPG storage and lines (steel).</li> <li>☑ bp liquid fuel storage and lines (HDPE, fibreglass or steel) – diesel (combustible) or petrol (flammable).</li> </ul>

		<ul style="list-style-type: none"> <li>☑ Sewer lines.</li> <li>☑ Air lines.</li> <li>☑ Water pipework.</li> <li>☑ Communication lines – between Automatic Tank Gauging (ATG) and the console; or between pumps and point of sale (POS) console.</li> </ul>
6.	<b>Confirm no services within 0.5m</b>	<p>Confirm no services are within 0.5m (vertically or horizontally) of the area where the concrete is to be drilled or broken. If there are services within 0.5m, <b>STOP WORK</b>. Relocate the planned work location to be greater to than 0.5m from the service. If this cannot be done, <b>STOP WORK</b> and contact your bp representative. Further risk assessment is required by a bp authorised Permit Issuing Authority and a Ground Disturbance Certificate may be required to be issued.</p> <p><b>NOTE:</b> This requirement does not apply if relocating masonry anchors within 50mm of existing location to depth no greater than 100mm and diameter drill bit not greater than 12mm. In this specific situation, work can proceed without confirming no services are present within 0.5m.</p>
7.	<b>Use of hand drills and hand-held tools to break concrete</b>	<p>The following hand-held tools may be used under this work instruction to a depth <math>\leq 100\text{mm}</math>:</p> <p>Non powered, non battery-operated hand tools - chisel, hammer, crowbar, hand operated drill, and other similar tools.</p> <p>Air powered drill or hammer drill including with a chisel attachment.</p> <p>Battery operated drill or hammer drill including with a chisel attachment</p> <p>If drilling, the area is to be kept wet during drilling.</p> <p>The use of jack hammers, concrete saws and other similar types of high impact equipment is not permitted by this work instruction.</p> <p><b>Authority from bp is required in the form of a Ground Disturbance Certificate and / or Hot Work Permit if in a hazardous area 1 or 2.</b></p> <p>The operator of the equipment is to wear insulated rubber soled safety footwear in addition to site PPE and any requirements from the contractors SWMS/JSA for the task. This work instruction does not cover the task hazards associated with the activity. These shall be covered by the contractor risk assessment, i.e. SWMS or JSA.</p>
6.	<b>End of Work</b>	<p>Pack up all equipment. Remove debris and make area safe. Report to the site representative and sign out the work is complete on the WCC.</p> <p>If the following day the work is to continue, the complete work instruction shall again be followed commencing at step 1.</p>

## 4. Associated Documents

- WI-A-4.5.1-01 bp Task Risk Assessment Table (TRAT)
- WI-A-4.5.1-02 Use of battery-operated hand tools in a hazardous area 2
- WI-A-4.5-01-04 Entry of mobile plant into a hazardous area 2
- PRO-4.5-0001-1-03 Ground Disturbance
- PRO-4.5-0001-1-07 Hot Work
- PRO-4.5-0001-1-01 Permit to Work
- PRO-4.5-0001-1-02 Energy Isolation
- PRO-4.5-0001-1-04 Confined Space Entry
- PRO-4.5-0001-1-05 Working at Height

## 5. Version Summary

**Table 1: Document Version Summary**

Version	Prepared by	Description of Change	Date	MoC
1	Glenn Dopson	Initial Document	30/08/2016	
2	Ian Heath	Revision - no changes made	07/01/2020	
3	Ian Heath	Training and Competency requirement and minor reference changes.	31/01/2021	

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**End of Document**