



M&C-M Work Instruction



WI-NZ-4.5.1-03

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

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Purpose

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-NZ-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 retail New Zealand sites.

Relevant OMS element(s)

OMS 4.5 – Control of Works

Control of work procedures (bp New Zealand Control of Works page)

bp NZ local procedures (bp New Zealand Control of Works page)

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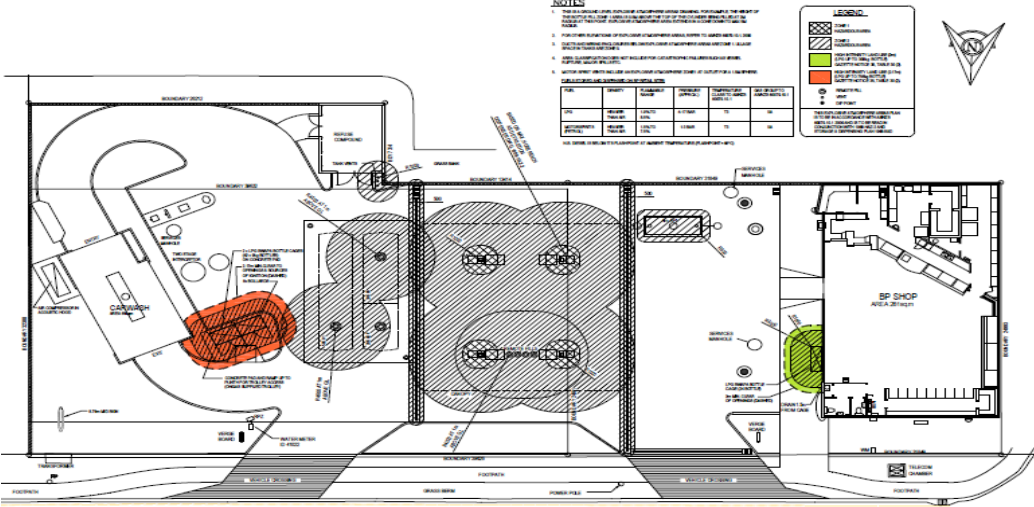
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1. Task/Activity Instruction(s)

Table 1: Instructions 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 to a depth of 100mm not in a hazardous area.
Pre-requisites:	<p>To be used only by bp accredited contractors, or sub-contractors engaged through a contractor, who is bp accredited to manage sub-contractors.</p> <p>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.</p> <p>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.</p>

2.	<p>Confirm proposed location is outside hazardous areas</p>	 <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). If this is not reasonably practicable WI-NZ-4.5.1-02 Use of battery-operated hand tools in a hazardous area 2 zone may be used by a trained and competent person in conjunction with this work instruction.</p>
3.	<p>Locate services that may affect the work area</p>	<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 to be reviewed.</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 if required.</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: WI-NZ-4.5.1-02 Use of battery-operated hand tools in a hazardous area 2 zones.</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 2.</p>
4.	<p>Identify services in the work area</p>	<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.	Check for other unidentified services	<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 & signs of ground disturbance. Look for services or equipment that may supply them passing through the work area.</p> <p>Typical services present on a bp retail site include:</p> <ul style="list-style-type: none"> ✔ Electrical power to the site, or mains power through the site. ✔ Mains gas supply to the site, or mains supply through the site. ✔ Telecommunication cables to, or through the site. ✔ bp LPG storage and lines (steel). ✔ bp liquid fuel storage and lines (HDPE, fibreglass or steel) – diesel (combustible) or petrol (flammable). ✔ Sewer lines. ✔ Air lines. ✔ Water pipework. ✔ Communication lines – between Automatic Tank Gauging (ATG) and the console; or between pumps and point of sale (POS) console.
6.	Confirm no services within 0.5m	<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, STOP WORK. Relocate the planned work location to be greater to than 0.5m from the service. If this cannot be done, STOP WORK 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>NOTE: 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.	Use of hand drills and hand-held tools to break concrete	<p>The following hand-held tools may be used under this work instruction to a depth $\leq 100\text{mm}$:</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 for the duration of drilling.</p> <p>The use of jack hammers, concrete saws and other similar types of high impact equipment are not permitted to be used with this work instruction.</p> <p>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.</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.
8.	End of Work	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. If the following day the work is to continue, the complete work instruction shall again be followed commencing at step 1.

2. Version Summary

Table 3: 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	
4	Ian Heath	Implementation of new M&C-M work instruction template. No changes made to existing work instruction	01/07/2024	22

3. Disclaimer

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