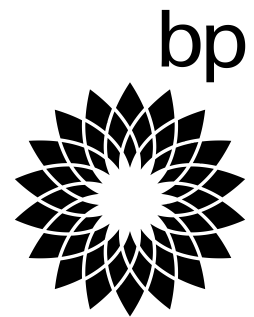




OMS Procedure



AM-PR-003

Construction Environmental Management Plan (C-EMP)

Revision: 1
Prepared by: Shannon Holroyd
Authorised by: Marcus Manning
Authorisation Date: 18th May 2015

This document has been approved for release and changed as per the associated eMoC.

To review changes to this document refer to previous versions held in the [Controlled Document Database](#).

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1 Purpose

The Construction Environmental Management Plan (C-EMP) has been prepared to improve and standardize how BP avoids and mitigates any adverse environmental effects from construction activities on New Zealand BP Fuels Value Chain (FVC) sites.

This procedure is intended for use by BP employees and contractors involved in the planning, pre-construction and construction phases at BP sites. This procedure details requirements to be followed by BP employees and contractors to ensure any environmental effects associated with its construction are avoided or mitigated. It also assists BP comply with relevant national regulations, resource consent conditions and district and regional plan requirements.

During the planning phase, this document forms part of a group of documents that support the resource consent application

2 Scope

The requirement specified in this procedure applies equally to BP employees, contractors and visitors engaged in BP ANZ Fuels Value Chain; Marketing, Supply & Logistics.

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

The requirements of this procedure apply to all earthworks associated with **construction activities** on **BP Oil New Zealand Limited (BP) FVC Sites**.

Construction activities include:

- New builds
- Raise and rebuilds
- Retanks
- Site exits

BP Oil New Zealand Limited (BP) FVC sites include:

- Service stations,
- Truck stops and
- Commercial sites:

This EMP does not address the Health and Safety Requirements of the Principal Contractor.

This EMP has been prepared in general accordance with Module 7.3.1 (UST and underground petroleum equipment removal and replacement) of the Ministry for the Environment (MfE) "Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Sites in New Zealand", Revised 2011 (hereafter referred to as the Oil Industry Guidelines).

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3 Definitions

TERM	DEFINITION
C-EMP	Construction Environment Management Plan
Principal Contractor	A person who, in respect of the whole or any part of the relevant operations to which the contract relates, is the contractor under another relevant contract.
Earthworks	Engineering works created through moving quantities of soil or unformed rock. The soil/rock may be moved to another location and formed into a desired shape for a purpose and usually involves machine excavation and fill or backfill.
New Builds	New to industry service station site.
Raise and rebuilds	Redevelopment of a current service station site.
Site exits	Current BP Service station that is exiting BP portfolio.
Construction Activities	These activities include: New builds; Raise and rebuilds; Retanks; and Site exits.
AEE	Assessment of Environmental Effects

4 Roles & Responsibilities

The **Network Development Manager** is responsible for ensuring the BP Construction EMP is incorporated in to all submitted AEEs. They must ensure that the requirements of this procedure are communicated to the BP engaged planners and outcomes passed on to the BP Project Engineer.

The **Consultant Planner** is responsible for ensuring the BP Construction EMP is incorporated into all AEEs that are tailored to meet the requirements of that particular site location.

The **BP Project Manager** is responsible for ensuring that compliance with this procedure is met during the length of the project and that it is communicated to the engaged Principle contractors.

The **Principle Contractor** is responsible for ensuring that compliance with this procedure is met over the duration of the project and that any issues are fed back to the BP Project Engineer immediately.

All other relevant **BP Staff & Site Contactors Staff** are responsible for ensuring that compliance with this procedure is met during the length of the project and that any issues are fed back to the BP Principle Contractor immediately.

5 Methodology

5.1 Construction Planning stage

The Network Development Manager/ Project Manager must ensure that:

- all necessary consents are identified and obtained (cross reference to procedure on obtaining and maintain resource consent)
- this procedure forms part of any resource consent application and supporting Assessment of Environmental Effects.

It is expected that this procedure will be directly referenced in the conditions of any resourced consent issued by the relevant regulatory authority. For example:

“Works shall be undertaken in accordance with the requirements of the BP Construction EMP procedure.”

These requirement are normally achieved by the Network Development Manager/ Project Manager engaging and briefing a Consultant Planner.

5.2 Pre-construction stage

Following the issuing of consents and prior to construction, the onsite implementation of the EMP will be reviewed by the Project Manager and Principal Contractor as part of the site Pre-construction Health, Safety, Security and Environmental Review (PHSSER).

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A site walkover will also be undertaken at this stage to identify the physical locations where EMP controls are to be implemented. Soil disposal locations, environmental sampling requirements, and required notifications will also be communicated to the Principal Contractor. The specific controls to be applied will be determined in consultation with the Project Manager during the site walkover.

5.3 Construction Stage

Environmental management controls which could be applied by BP's Principal Contractor during earthworks at the site are presented below. Depending on site specific circumstances, not all of the environmental management controls documented may be necessary for the site.

5.3.1 Soil Disposal and Fill Controls

The following controls will ensure soils are appropriately disposed of offsite and that any fill brought onto the site is clean/uncontaminated:

Disposal

- Soil designated for removal will be tested prior to removal to determine contamination status.
- Contaminated soil removed from the site will be transported by truck to a waste disposal facility authorised to receive the soil.
- Soils not deemed to be contaminated will be transported by truck to a waste disposal facility authorised to receive uncontaminated soil.
- Landfill receipts will be retained and submitted to council as required.
- All material to be disposed off-site will be subject to *BP waste management protocols* (attached).

Fill

- Fill imported to site to backfill excavated voids will comprise clean/uncontaminated materials.
- The source of backfill materials and the volume imported will be documented.

5.3.2 Erosion and Sediment Controls

During construction activities excavated soils and fill materials (contaminated and uncontaminated) are likely to be exposed and can be tracked offsite by vehicles or be entrained in storm water runoff. The discharge of sediment laden water or hydrocarbon contaminated storm water can have significant adverse effects on surface water and storm-water systems. The potential for these effects will be mitigated by the following controls:

Vehicle tracking and truck leakage controls

The potential for soil to be tracked or leaked off site from site vehicles will be minimised by:

- Using trucks with sealed trays to transport saturated soils.
- Where practicable, restricting vehicle movements to sealed areas of the site.
- Placing filter cloths on all cesspits located adjacent to vehicle crossings.

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- Drivers, prior to exit, are to inspect their vehicles and wheels prior to the vehicles leaving the site and cleaning them via dry brush if and when required.
- If soil conditions require, the construction of wheel wash facilities on site using hardstand or drainage chip to enable soils to be washed off back to ground.
- When required street sweeping roads.

Excavation and stockpiling controls

The potential for excavated soils and sediment to collect on impervious services will be minimised by:

- where practicable, loading excavated soil to be removed from site directly onto trucks

If it is necessary for excavated soil to be stockpiled on-site, stockpiles will be managed by ensuring stockpiles are:

- temporary, and aimed to be removed on the same day or the day following excavation if possible.
- located on concrete hard standing if possible and/or if necessary, sheeted/covered
- kept tidy, less than 4 m in height and with a stable slope
- if saturated, stockpiled immediately adjacent to the excavation to allow excess water to drain back into the excavation.
- If dry and conditions dictate, stock piles will be kept damp to prevent dust migration
- isolated from the public.

Finished Surface

All excavations will be re-instated such that no contaminated soil will be exposed at surface. Finished surfaces will comprise erosion resistant surfaces including concrete, or asphalt. Exposed soils in garden areas will be covered in stones unless otherwise dictated in planning conditions.

5.3.3 Stormwater controls

The potential for excavated soils and sediment to runoff from the site or stockpiles via overland flow or enter any storm water drains and nearby surface water bodies will be minimised by undertaking works in general accordance with:

Erosion and sediment control guidelines for land disturbing activities in the Auckland Area, technical publication No. 90 Auckland Regional Council 1999 (revised 2007)

As a guide, the following erosion and sediment controls specified in TP90 will be typically considered:

- Storm water inlet protection
- Earth bunds or swales

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- Silt fences
- Hay bale barriers

5.3.4 Dewatering of excavations

Excavations may require dewatering depending on the depth of excavation, soil types and groundwater depths. Possible dewatering methods and the subsequent environmental management controls which could be applied if required are laid out in the attached *BP Dewatering Procedure* (attached).

5.3.5 Air Quality Management

Odour

It is possible that odour will be generated by the excavation and handling of soil during the works. The primary sources of potential odour are hydrocarbon vapours released from the walls and floors of open excavations and from soil stockpiles where hydrocarbon impacted soil is exposed. If considered necessary, the following odour management procedures could be used:

- Undertaking excavation works in a staged manner to limit the exposed surface area of potentially odorous material, and backfilling excavations.
- Placement of stockpiles away from site boundaries.
- Wetting-down of excavations or stockpiles.
- Covering any portion of the site that is generating odour.

Dust

Excavation and stockpiling of soils and on-site vehicle movements may generate dust. Dust generated from contaminated soils during handling could contain contaminants. If required, the generation and impact of dust on the surrounding environment will be minimised by:

- suspending or limiting dust generating activities during periods of high wind
- using water on exposed soils to suppress dust, while ensuring that any water used is not allowed to migrate directly off-site by the stormwater, sewer, or any other means
- covering areas of exposed soil with sheeting
- ensuring trucks transporting contaminated natural soils and/or bedding material from site are covered and that vehicles are adequately cleaned.

Noise

Noise will be generated by mechanical plant used on site for excavation, tank removal and backfilling. Noise may also be generated by truck and trailer units used to transport impacted soil away from the site and to import fill material to the site. Noise will be managed in accordance with Council Plan requirements and standard industry practise.

6 Associated Documents

BP Dewatering Procedure

BP Waste Management Protocol

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7 Verification

The information outlined in this procedure shall be included in the ANZ FVC MS&L self-verification process.

8 External References

Guidelines for assessing and managing petroleum Hydrocarbon Contaminated Sites in New Zealand; MfE April 2012

National Environmental Standards for assessing and managing contaminants in soil to protect Human Health; MfE April 2012

HSNOCOP 40 – Below ground stationary container systems for petroleum – design and installation; EPA May 2012

HSNOCOP 45– Below ground stationary container systems for petroleum – operation; EPA May 2012

This Document was drafted with reference to relevant legislation at the date of drafting, including but not limited to, relevant Acts, Regulations, Australian Standards and industry codes and practices. Details of current legislation can be provided by the S&OR team on request.

9 Revision Summary

Revision	Prepared by	Description of Change	Date
1			
2			

End of Document

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