

**EXMOUTH QUARRIES AND
CONCRETE**

M08/06 SL3H/034

**OPERATIONAL MANAGEMENT PLAN
FUEL DELIVERY AND SPILL RESPONSE
STANDARD OPERATING PROCEDURES**

**Exmouth Quarries and Concrete
Operational Procedures
FUEL DELIVERY AND SPILL RESPONSE**

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1. Introduction and Purpose

The following is a guideline to address the issues associated with fuel deliveries to ML08/06 SL3H/034.

EQC shall ensure that all employees are aware of the procedure to be followed for dealing with spills and leaks.

- Any accidental leak and spill of fuel, oil or other hazardous substances is to be reported to the Site Supervisor immediately so that the best remediation method can be quickly implemented.
- In the event of a hydrocarbon spill, the source of the spillage shall be isolated and the spillage contained.
- The area shall be cordoned off and secured.
- Exmouth Quarries and Concrete shall ensure that there is always a supply of absorbent material readily available to absorb / breakdown spills.
- The quantity of such materials shall be able to handle the total volume of the hydrocarbon / hazardous substance stored on site.
- Hydrocarbon contaminated material and / or soil shall be collected and stored in a bunded area until future disposal
- The relevant Material Safety Data Sheets for all hazardous chemical substances (as defined in the Regulations for Hazardous Chemical Substances shall be on site.
- Procedures detailed in the Material Safety Data Sheets shall be followed in the event of a spill or emergency situation.
- EQC shall be liable to arrange for professional service providers to clear the area affected by the spill, if required

EQC shall submit a Method Statement detailing the precautions that shall be implemented to limit spills and leakage of these hydrocarbons and other hazardous substances

2. Scope

These procedures are to be implemented at the Quarry site during mobile fuelling operations.

3. Standards and Specifications (for vehicle and equipment fuelling)

The Quarry Manager is to verify that appropriate spill response equipment and personnel protective equipment is readily available and easily accessible;

The transfer operation shall be monitored constantly by Quarry Manager and by the transport vehicle operator. Personnel monitoring the operation shall be knowledgeable of the hazards associated with the product and familiar with formal written procedures for controlling any spill that may occur.

Vehicle and equipment fuelling procedures and practices are designed to minimize pollution of surface or ground waters. Understanding the procedures for delivering fuel into vehicles from mobile fuel tanks is critical for this purpose. Safety is always the priority.

- Shut the engine off
- Ensure that the fuel is the proper type of fuel.
- Absorbent spill clean-up materials and spill kits shall be available in fuelling areas and on mobile fuelling vehicles and shall be disposed of properly after use.
- Nozzles used in vehicle and equipment fuelling shall be equipped with an automatic shut-off to prevent overfill.
- Fuel tanks shall not be "topped off."
- Mobile fuelling shall be minimized. Whenever practical, vehicles and equipment shall be transported to the designated fueling area in the laydown area.

4. Standards and Specifications (for bulk fuelling)

Drip pans or absorbent pads shall be used under all hose and pipe connections and other leak-prone areas during re-fueling.

Contain tank trucks used for bulk transfer, with collapsible bunding and temporary absorbent booms during the transfer process.

All hose connection points associated with the transfer of fuel must be within the temporary berms during the loading/unloading of bulk fuels.

Protect fuelling areas with bunds and booms to prevent run-on, runoff, and to contain spills.

A trained employee must always be present to supervise during fuel transfer.

5. Spill Response (See Standard Operating Procedures- Spill Response)

All MINOR spills must be reported to the Dept. of Water, DEC, DMP and Water Corporation within 24hrs of occurrence.

MAJOR spills must be notified immediately spill occurs.

Conduct clean-ups of any fuel spills immediately after discovery.

Uncontained spills are to be cleaned using dry cleaning methods only.

Spills shall be cleaned up with a dry, absorbent material (e.g., kitty litter, sawdust, etc.) and absorbent materials shall be swept up.

Collected waste is to be disposed of properly.

6. Maintenance and Inspection

Fuelling areas and storage tanks shall be inspected monthly.

Keep an ample supply of spill clean-up material on the site.

Any equipment, tanks, pumps, piping and fuel dispensing equipment found to be leaking or in disrepair must be repaired or replaced immediately.

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7. Accidental Leaks and Spills

EQC shall ensure that all employees are aware of the procedure to be followed for dealing with spills and leaks.

- Any accidental leak and spill of fuel, oil or other hazardous substances is to be reported to the Site Supervisor immediately so that the best remediation method can be quickly implemented.
- In the event of a hydrocarbon spill, the source of the spillage shall be isolated and the spillage contained.
- The area shall be cordoned off and secured.
- Exmouth Quarries and Concrete shall ensure that there is always a supply of absorbent material readily available to absorb / breakdown spills.
- The quantity of such materials shall be able to handle the total volume of the hydrocarbon / hazardous substance stored on site.
- The relevant Material Safety Data Sheets for all hazardous chemical substances (as defined in the Regulations for Hazardous Chemical Substances) shall be on site.
- Procedures detailed in the Material Safety Data Sheets shall be followed in the event of a spill or emergency situation.
- EQC shall be liable to arrange for professional service providers to clear the area affected by the spill, if required
- EQC shall submit a Method Statement detailing the precautions that shall be implemented to limit spills and leakage of these hydrocarbons and other hazardous substances.

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Area of site: MI08/06 SL3H/034

Activity/facility/store: Limestone Quarry

Table 1 Structural and Procedural Controls' Pollution risks' and 'Pollution controls'

Risk Factor	Potential Impacts	Significance of Emissions	EQC Principal Operational Management
Dust Emissions Operation	Visual amenity Foliage coverage on surrounding flora	Dust event due to weather conditions Community complaint relating to dust	Management and control of any incidental emissions
Discharges to Land	Site contamination and generation of contaminated wastewater/ Stormwater	Potential pollutants discharge off site. Impact on Groundwater regime and quality	Site planning has accounted for intense Stormwater events with silt traps and engineered flow lines. <i>Structural and procedural controls site.</i>
Discharges to Water	Site contamination and generation of contaminated wastewater/Stormwater Discharge during runoff events.	Potential groundwater pollutants discharge off site. Alkaline wastewater Impact on Groundwater regime and quality	<i>Structural and procedural controls site.</i>
Solid Wastes	Site contamination and generation of contaminated wastewater /Stormwater	Potential groundwater pollutants discharge off site Impact on Groundwater regime and quality	<i>EMP Structural and procedural controls site.</i>
Hydrocarbon/Chemical Storage	Exmouth Quarries and Concrete does not currently plan to store fuel or conduct equipment servicing on site but will store vehicles and Plant on site	Impact on Groundwater regime and quality	Drip trays will be provided for stationary plant. All vehicles and equipment shall be kept in good working order and serviced regularly. Leaking equipment shall be repaired immediately or removed from the site. All re-fueling shall be confined to demarcated, bunded areas

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8. Inspection and maintenance programme

8.1 Environmental Aspects

EQC shall be responsible for monitoring, reviewing and verifying compliance with the Construction and Operational EMP.

EQC duties in this regard shall include, inter alia, the following:

- Monitoring and verifying that the Construction/Operational EMP and Method Statements are adhered to at all times and taking action if specifications are not followed.
- Monitoring and verifying that environmental impacts are kept to a minimum.
- Finding environmentally responsible solutions to problems.
- Inspecting the site on a regular basis with regard to compliance with the Construction/Operational EMP.
- Keeping accurate and detailed records of these inspections.
- Reporting any incidents of non-compliance with the Construction/Operational EMP to the DEC.
- Keeping a register of complaints on site and recording community comments and issues, and the actions taken in response to these complaints.
- Undertaking regular site visits to ensure compliance with the Construction/Operational EMP and verifying that environmental impacts are kept to a minimum.
- Completing environmental checklists during site visits.
- Keeping a photographic record of progress on site from an environmental perspective.
- Recommending additional environmental protection measures should this be necessary. .
- Giving a report back on any environmental issues at site meetings.
- Reporting any incidents that may or have caused damage to the environment or breaches of the EMP to DEC.

8.2 Inspection Procedures

The day-to-day monitoring and verification that the Construction/Operational EMP is being adhered to shall be undertaken by appointed personnel within EQC.

The EQC shall inspect the site once a month to ensure that correct operational procedures are being implemented and that the EQC is complying with the environmental specifications in the Construction/Operational EMP.

Additional site inspections may be needed during the initial and final stages of the project.

The EQC shall address any queries to the DEC.

8.3 Record of Activities

EQC shall keep a record of activities on site, including but not limited to meetings attended, issues arising on site, cases of non-compliance with the Construction/Operational EMP, and corrective action taken to solve problems that arise.

In addition, the EQC shall keep a record of complaints from interested and affected parties.

EQC shall undertake photographic monitoring of the construction and operation. This shall include a photographic record of all areas that will be impacted by the construction activities prior to construction activities commencing.

EQC shall monitor all sensitive work environments, which may also include photographic monitoring.

EQC Batch Plant has a Records procedure for the identification, maintenance and disposition of environmental records.

These records include training records and the results of audits and reviews.

These records are kept to demonstrate conformance with the EMS and applicable regulations.

Reference Material:

ISO 14001 Standard (4.5.3)

8.4 Monitoring and Measurement

EQC Batch Plant has established the Measurement and Monitoring procedure

to monitor and measure the key characteristics of its operations and activities that can impact compliance and that have a significant impact on the environment.

This procedure includes calibration and maintenance requirements and ensures that records will be retained.

Applicable Procedures:

Measurement and Monitoring

Management Review

Reference Material:

ISO 14001 Standard (4.5.1)

Compliance Audit Procedures and Documentation

Table 2 Inspection and Maintenance Program -summary of type and frequency

Facility Metric	Data Collection Frequency
Dust Emission	Daily
Water Use	3 Monthly
Wastewater volume	Daily
Wastewater Quality	Weekly
Cement Residuals	Weekly
Chemical Use Rate	Weekly
Stormwater discharge	During event

8.5 Non-conformance and Corrective/Preventive Action

EQC has developed the Preventive and Corrective Action procedure to define responsibility and authority for handling and investigating non-conformance, for taking action to mitigate impacts, and for initiating and completing corrective and preventive action.

Any changes in procedures resulting from corrective and preventive actions are implemented and recorded.

Applicable Procedures:

Preventive and Corrective Action

Reference Material:

ISO 14001 Standard (4.5.2)

8.6 Environmental Awareness Training

Before the commencement of any work on site, EQC staff shall attend an environmental awareness-training course.

The information presented at the course shall be communicated, to any new employees coming onto site after the initial training course and to EQC suppliers

As a minimum, training shall include:

- Explanation of the importance of complying with the Construction/Operational EMP;
- Discussion of the potential environmental impacts of construction activities;
- Explanation of the management structure of individuals responsible for matters pertaining to the Construction/Operational EMP.
- Employees' roles and responsibilities, including emergency preparedness;
- Explanation of the mitigation measures that must be implemented when carrying out their duties.
- Explanation of the specifics of the Construction/Operational EMP and its specification.
- Explanation of the Environmental Do's and Don'ts
-

EQC shall keep records of all environmental training sessions, including names of attendees, dates of their attendance and the information presented to them.

8.7 EMP Internal Review and Auditing

EQC shall establish an internal review procedure to monitor the progress and implementation of the Construction/Operational EMP.

Where necessary procedures that require modification shall be changed to improve the efficiency of the Construction/Operational EMP.

All significant modifications to the Construction/Operational EMP shall be approved by DEC before these changes or adjustments to the Construction/Operational EMP are implemented.

Any changes or adjustments to the Construction/Operational EMP shall be registered in the daily records

Adjustment and update of the original Construction/Operational EMP document is not required when these ad hoc changes are made.

At the conclusion of the project an environmental audit report shall be compiled and submitted to DEC.

This report shall be compiled by EQC. It shall, as a minimum, outline the implementation of the Construction/Operational EMP, and highlight any problems and issues that arose during the construction period to report, on a formal basis, the lessons learned from this project.

Standard Operating Procedures

SOP1 MEASUREMENT AND MONITORING

Purpose/Scope

This procedure is used to implement a measurement and monitoring program designed to support the EMP and specific EMP objectives and targets.

Responsibility

The site manager will be responsible for providing data and monitoring operations that are specific to their functions. Administration will be responsible for consolidating all the data and conducting facility-wide monitoring.

Procedure

A. Measurement

- EQC will track the site metrics by collecting and charting data relevant to the metric at the frequency indicated.
- The administration clerk is responsible for consolidating the data from each functional unit and shall document the following metrics on a site basis.
- The area manager will measure unique parameters that were developed during the Setting and Tracking Environmental Objectives and Targets
The site manager will measure the instances of non-compliance.
This data will be consolidated in order to assess site compliance.
- The developed metrics will be evaluated and revised as objectives and targets are modified and/or added.

B. Monitoring

- EQC staff will review facility and target-specific measurement and monitoring data every 3 months to identify trends evaluate progress toward meeting EMP objectives and targets, and discuss overall environmental performance.
- The managers will ensure that data obtained to monitor their specific activities is continually evaluated to ensure compliance with applicable environmental Acts and Regulations.
- EQC Administration will be responsible for providing an annual summary of the results of the monitoring program to management.

Frequency

The monitoring and measurement aspects will be evaluated as objectives and targets are modified or added.

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SOP2 PREVENTATIVE AND CORRECTIVE ACTION

Purpose/Scope

The purpose of this procedure is to establish and outline the process for identifying, documenting, analysing, and implementing preventive and corrective actions.

Preventive or corrective actions may be initiated using this procedure for any environmental problem affecting EQC.

Definitions

Preventive Action - is generally a proactive process intended to prevent potential problems before they occur or become more severe.

Corrective Action - is generally a reactive process used to address problems after they have occurred.

Responsibility

EQC is responsible for ensuring that actions are taken to prevent and correct identified problems..

EQC shall delegate responsibility for dealing with individual problems to specific individuals.

These individuals are responsible for the development and implementation of the preventive and corrective actions.

Procedure

A. General

- Corrective action is initiated using the Corrective Action Notice (CAN) document as the primary vehicle for communication.
- Corrective action may be triggered by a variety of events, including internal audits and management reviews
- Other items which might result in a CAN include neighbour complaints or results of monitoring and measurement.
- Preventive action is initiated using the Preventive Action Notice (PAN).
- Preventive action focuses on identifying negative trends and addressing them before they become significant.
- Events that might trigger a PAN include monitoring and measurement, trends analysis, tracking of progress on achieving objectives and targets, response to emergencies and near misses, and customer or neighbour complaints.
- Preventive and corrective action notices are prepared, managed and tracked using the preventive and corrective action log.
- EQC management is responsible for reviewing issues affecting the EMP, the application and maintenance of this procedure, and any updates to EMS documents affected by the preventive and corrective actions.
- The Administration officer is responsible for documenting the PAN or CAN on the preventive and corrective action log, and tracking and recording submission of solutions.
- The requester and recipient of the CAN or PAN are responsible for verifying the effectiveness of the solution. EQC Management is responsible for overall tracking and reporting on preventive and corrective actions.
- Personnel receiving PANs and CANs are responsible for implementing the required corrective or preventive action, reporting completion of the required action.
- Completed records of PANs and CANs are maintained for at least two years after completion of the corrective or preventive action.

B. Issuing a CAN or PAN

- A CAN or PAN may be requested by any employee.
- The manager determines whether a CAN or PAN is appropriate and enters the appropriate information into the corrective and preventive action log.
- Responsibility for resolving the problem is assigned to a specific individual ("the recipient").

C. Determining and Implementing Corrective and Preventive Actions

- The CAN or PAN is issued to the recipient, who is responsible for investigation and resolution of the problem.
- The recipient is also responsible for communicating the corrective or preventive action taken.
- If the recipient cannot resolve the problem by the specified due date, the recipient is responsible for determining an acceptable alternate due date.

C. Tracking CANs and PANs

- CANs or PANs whose resolution dates are overdue appear as such on the preventive and corrective action log.
- Administration clerk is responsible for notifying the recipients of any overdue CANs or PANs
- Records of PANs and CANs are maintained for at least two years after completion of the corrective or preventive action.

D. Tracking Effectiveness of Solutions

The recipient of a CAN or PAN, in conjunction with the requester, is responsible for verifying the effectiveness of the solution. If the solution is not deemed effective, the CAN or PAN will be reissued to the original recipient.

Frequency

Corrective or preventive actions shall be initiated whenever the need to take action arises.

Related Documents

Records

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Corrective Action Notices (CANs)
Preventive Action Notices (PANs)
Preventive and Corrective Action Log

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SOP3 EMERGENCY RESPONSE AND PREPAREDNESS

Purpose/Scope

This procedure is used to anticipate, document, prepare, and review emergency events and preparedness plans.

Responsibility

Coordinating the development of a Emergency Response Plan, and developing Emergency Incident Reports for all emergency response activities is the responsibility of the OH&S officer at EQC.

Procedure

- All personnel are responsible for identifying dangers, taking proactive steps to prevent emergency incidents, and completing tasks in preparation for emergencies.
- EQC will coordinate the preparation and upkeep of an Emergency Response Plan that contains all emergency procedures required by local, state and federal regulatory agencies.
- FESA/DEC will require the managers to prepare an Emergency Response Plan relevant to their activities.
- EQC management will familiarise and train employees and emergency personnel on the procedures described in the Emergency Response Plan.
- For each emergency incident, managers, and the involved employees will determine the cause of the emergency, evaluate the response to the incident, and identify actions to be taken to minimize its recurrence.
- At least annually, management and personnel will review the Emergency Response Plan and any emergency incidents that occurred since the last review. This activity will be conducted on a more frequent basis if facility conditions warrant.
- Administration will maintain documentation on emergency response and preparedness and emergency incidents for at least five years.

Frequency

The Emergency Response Plan will be evaluated on an annual basis or as conditions warrant.
Emergency incidents will be documented in compliance with this procedure as they occur.

Related Documents

Records

Emergency Incident Reports

Applicable Procedures

Training

SOP4 ENVIRONMENTAL MANAGEMENT AND AUDIT

Purpose/Scope

To define the process for conducting periodic audits of the EMP. The procedure defines the process for scheduling, conducting, and reporting of EMP audits.

This procedure applies to all internal EMP audits conducted at the site.

The scope of EMP audits may cover all activities and processes comprising the EMS or selected elements thereof.

Responsibility

EQC responsible for coordinating the completion of all audits and for maintaining relevant records.

The Auditor is responsible for conducting the audit and documenting the results.

The managers are responsible for implementing any follow-up activities that result from the audit.

Procedure

General

- Internal EMP audits will focus on verifying that activities conform with documented procedures and that corrective actions are undertaken and are effective.
- All audits are conducted by trained auditors.
- Administration clerk is responsible for maintaining EMP audit records including a list of trained auditors, auditor training records, audit schedules and protocols, and audit reports.
- EMP audits are scheduled to ensure that all EMP elements and plant functions are audited at least once each year.
- EQC management is responsible for notifying EMS auditors of any upcoming audits at reasonable time prior to the scheduled audit date
- Plant areas and functions subject to the EMP audit will also be notified a reasonable time prior to the audit.
- The Auditor is responsible for ensuring that the audit, audit report and any feedback to the plant covered by the audit is completed per the audit schedule.

Written Audit Plan

The Auditor is responsible for ensuring the preparation of a written plan for the audit.

The EMP Audit Plan Summary form may be used as a guide for this plan.

Prior Notification

The plant areas and/or functions to be audited are to be notified a reasonable time prior to the audit.

Conducting the Audit

- Auditors are at liberty to modify the audit scope and plan if conditions warrant.
- Objective evidence is examined to verify conformance to EMP requirements, including operating procedures.
- All audit findings must be documented.
- Specific attention is given to corrective actions for audit findings from previous audits.
- A post-audit conference is held to present audit findings, clarify any misunderstandings, and summarize the audit results.

Reporting Audit Results

- The Auditor prepares the audit report, which summarizes the audit scope, identifies the audit team, describes sources of evidence used, and summarizes the audit results.
- Findings requiring corrective action shall be dealt with in accordance with the Preventive and Corrective Action procedure.

Audit Report Distribution

- EQC Management is responsible for communicating the audit results
- EQC is responsible for ensuring availability of audit reports for purposes of the annual management review.

Audit Follow-up

- Management in the affected areas or functions are responsible for any follow-up actions needed as a result of the audit.
- Administration is responsible for tracking the completion and effectiveness of corrective actions.

Record Keeping

- Audit reports are retained for at least two years after the date of audit completion.
- Administration clerk is responsible for maintaining such records.

Frequency

All EMP activities shall be audited on an annual basis.

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Related Documents

Records

EMS Audit Report
Corrective Action Notices (CANs)
Applicable Procedures
Preventive and Corrective Action
Records
Management Review
EMS Audit Plans

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SOP5 FUEL DELIVERY

PROCEDURE Bulk diesel product delivery to Quarry equipment

PURPOSE To assure the safe and proper transfer of diesel

SCOPE This procedure covers control and management procedures for transfer of diesel

RESPONSIBILITIES All personnel are primarily responsible for implementing this procedure. All employees who oversee and perform product transfer operations are responsible for familiarity with this procedure. The Quarry Manager is responsible for verifying continued compliance with this procedure.

1. **Quarry Manager** Note tanker arrival time and any circumstances which may cause a delay in its prompt off-loading
2. **Delivery driver** Report volume of product to be delivered
3. **Quarry Manager** Gauge the receiving vehicle tank to verify
4. **Quarry Manager and Delivery driver** Block/chock wheels and verify setting of vehicle brake
5. Drip pans or absorbent pads shall be used under all hose and pipe connections and other leak-prone areas during re-fuelling
6. Contain tank trucks used for bulk transfer, with collapsible bunding and temporary absorbent booms during the transfer process
7. All hose connection points associated with the transfer of fuel must be within the temporary berms during the loading/unloading of bulk fuels
8. Protect fuelling areas with bunds and booms to prevent run-on, runoff, and to contain spills
9. Protect storm drains per local necessity
10. **Quarry Manager** Check safety and emergency equipment. Verify that equipment is readily available and easily accessible
11. **Delivery driver** Where appropriate, place buckets underneath connection points to catch drippings to connection hose/fittings. Show Client personnel where cut-off actuator valve is located on truck
12. **Delivery driver** Commence delivery. Inspect all visible fill lines, valves and connections for leaks
13. **Quarry Manager and Delivery driver** Remain within visual contact of tanker throughout entire operation
14. **Quarry Manager and Delivery driver** Monitor the amount of diesel dispensed against the volume available in tank
15. **Quarry Manager and Delivery driver** When transfer is complete, disconnect hoses, catching any residual product in buckets. Dispose of residual product in a safe and appropriate manner as directed by the operator
16. **Quarry Manager** Restore all equipment. Collect receipts. Note tanker departure time.

EQC Management . Audit compliance of this procedure through periodic delivery observation. Take appropriate actions when exceptions are noted.

SOP6 HYDROCARBON SPILL RESPONSE (Rock/Hard Surfaces)

The type of clean-up described in these notes is for a minor spill (few litres) to a medium spill (450 Litres) of oil or fuel on Rock/Hard surface.

In a major spill onto broken ground complex with some soil component, the procedure for HYDROCARBON SPILL RESPONSE (Broken Ground) is to be used.

Once a spill has reached soil or any broken ground, the control, containment and clean-up of the spill becomes more difficult than a spill onto a hard surfaces.

It is important contain the spill to the rock/hard surfaces.

The three basic steps of a spill clean-up are;

Control the spill

Contain the spill

Clean-up the spill

Before attempting any spill clean-up ensure the area is safe to enter.

Be aware of fumes.

Approach the spill site from up wind.

Always ensure personal protection equipment is worn.

Control

Stop the source of the spill. For example, upright the drum or stop the pump, turn off all ignition sources.

Contain

Use absorbent booms to surround and prevent the spill from further impacting the environment.

With a spill onto a hard surface, the spill will travel very quickly in the initial few moments.

Prevent the spill from entering fissures and culverts.

Clean-up

Large pools of liquid should be absorbed with pillows and pads.

The remaining spill to be covered with a layer of Global Peat absorbent material to absorb any free liquid and prevent slippage of vehicles.

All absorbent materials then to be reclaimed and disposed of in the supplied labelled bagging.

The bagging is then to be placed in drums and removed to Pelias Street Depot for storage until removal from by contracted disposal company (Wren Oil).

SOP7 HYDROCARBON SPILL RESPONSE (Broken Ground)

The type of clean-up described in these notes is for a minor spill (few litres) to a medium spill (450 Litres) of oil or fuel on broken ground complex with some soil component.

The four basic steps of a spill clean-up are;

- Control the spill
- Contain the spill
- Clean-up the spill
- Remediation of the spill

Once a spill has reached broken ground, the control, containment and clean-up of the spill becomes more difficult than a spill onto a hardstand.

Before attempting any spill clean-up ensure the area is safe to enter.

Be aware of fumes.

Approach from up wind.

Always ensure personal protection equipment is worn.

Control

Stop the source of the spill for example upright the drum or stop the pump, turn off all ignition sources.

Contain

Use absorbent booms to surround and prevent the spill from further impacting the environment.

Often with a spill onto soil, little sideways movement occurs after the initial few moments.

Unless the surface is extremely compacted or wet, the spill will soak into the ground.

Clean-up

Large pools of liquid to be absorbed with pillows, pads, or particulate and then these absorbents to be recovered for disposal.

The remaining spill should be covered with a layer of Global Peat (an organic absorbent) which is used to absorb any free liquid.

Use a rake to help spread the absorbent material.

Remediation

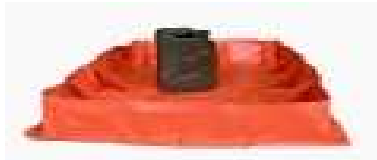
To speed up remediation, spray the contaminated area with liquid hydrocarbon utilising bacteria (Global Clean-up Treatment).

Biological remediation is used to break down fuels, oils and other hydrocarbon products naturally. Global Peats contains hydrocarbon utilizing bacteria and will help to commence the bioremediation process.

Note: It is unlikely the microbes will be effective below 300mm.

9. TECHNICAL DATA SPILL CONTAINMENT EQUIPMENT

9.1 Collapsible Bund 450 Litre Top of Form



Description	Dimensions
Application	Collapsible bunds are a unique snap-out design that permits operators to create a safe and secure area to house drums, tanks, plant or machinery during refuelling and to deal with potential spillages.
Collapsible Bund	150cm x 120cm x 25cm
Walls	250mm
Batons	310mm Strong resin struts (batons) keep sides rigid - in windy conditions.
Bund storage volume	450 litres
Construction	heavy duty PVC (900 gsm)

9.2 Large Truck Kit Spill Kit



Spill Kit type	Oil, fuel, diesel, petrol, solvents & other petroleum products.
Application	Unsealed areas around mine sites, drilling rigs & truck stops. Components designed for harsh conditions.
Absorbent capacity	95 litres

9.2.1 Contents of Spill Kits

Qty	Description	Size
3	Envirosorb™ poly boom	2.4m x 75mm
3	Envirosorb™ pillows	34cm x 22cm
25	Envirosorb™ pads	45cm x 45cm
4	Global Peat, bag	6 litre
1	PVC gloves, pair	450mm
4	Disposal Bag, labelled	100 micron polyethylene
1	Carry Bag, yellow	Large
1	Spill Kit label	Self-adhesive PVC
1	Operating Instructions	A4, laminated
1	Refill Kit	Complete

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9.3 Half Pallet Size Tray Top of Form

Description	Dimensions
Application	Tray to catch leaks and drips from a large variety of machinery, compressors or drums.
Dimensions	143cm (L) x 78cm (W) x 18cm (H)
Sump capacity	146 litres
Construction	durable heavy duty polyethylene
Use	capture leaks and drips

10. REFERENCES

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