Figure 1: Site Locality Map indicating surrounding land use

Legend
Landuse near Chevron refinery
- Chevron Refinery
- New Residential
- New Mixed Landuse

General Landuse
- Commercial
- Conservation and Nature Areas
- Education
- Industrial
- Health Services
- Institutional
- Mineral Extraction
- Public Facilities
- Residential
- Rural and Agriculture
- Undeveloped Land
- Urban Open Space
- Waterbodies
- 5km buffer around site

Chevron South Africa (Pty) Ltd

Source: Surveys & Mapping, City of Cape Town
Map Number: 3318CD; 3318DC; City of Cape Town

It is unlawful for any firm or individual to reproduce copyrighted maps, graphics or drawings, in whole or in part, without permission of the copyright owner, ERM Southern Africa (Pty) Ltd.
Legend

- Chevron Refinery
- New Consolidated Waste Facility
- Interim Storage 1
- Interim Storage 2
- Interim Storage 3
- Alternative Site S1
- Alternative Site S2
- Alternative Site S3
- Hazardous Waste Storage
- Salvage Yard
- Scrap Metal

Figure 2: Site Locality Map
B1 PHOTOLOG

B1.1 EXISTING HAZARDOUS WASTE STORAGE AREA

Photo 1.1 Looking South

Photo 1.2 Looking West
Photo 1.3  Looking North

Photo 1.4  Looking East
Photo 1.5  View Showing Sump Cover

B1.2  EXISTING SALVAGE YARD

Photo 1.6  Entrance to the Salvage Yard
Photo 1.7  Salvage Yard Drum Cleaning Area

Photo 1.8  Looking East
Photo 1.9  Salvage Yard Bin Washing Area

Photo 1.10  Salvage Yard Skips
Photo 1.11  Recycling Facility At Salvage Yard

Photo 1.12  Concrete Slab where Interim Storage Area 1 will be Constructed

B1.3  INTERIM STORAGE AREAS
**Photo 1.13**  Concrete Slab where Interim Storage Area 2 will be Constructed

**B1.4**  Existing Scrap Metal Storage Area

**Photo 1.14**  Looking West
B1.5 PROPOSED CONSOLIDATED WASTE STORAGE FACILITY

Photo 1.16 View Looking South East
Photo 1.17  View Looking South West

Photo 1.18  View Looking South
**Photo 1.19**  View Looking East

**Photo 1.20**  View Looking North
Photo 1.21  View Looking West

Photo 1.22  View Looking North West
Appendix C

Facility Illustrations
Conceptual sketch showing main Features of Consolidated Waste Facility
Appendix D

Environmental Management Programme (EMP)
CONTENTS

1 INTRODUCTION 2

1.1 INTRODUCTION 2
1.1.1 The Proposed Activities 2
1.1.2 Local Context 2
1.2 PURPOSE OF THE EMP 3
1.3 STANDARDS AND GUIDELINES 4
1.4 CHEVRON’S ENVIRONMENTAL MANAGEMENT POLICIES AND COMMITMENTS 5
1.5 SUMMARY OF IMPACTS ASSOCIATED WITH THE PROPOSED ACTIVITY 5

2 ROLES, RESPONSIBILITIES AND REPORTING STRUCTURES 6

3 DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME 9

3.1 CONSTRUCTION PHASE 9
3.2 OPERATIONAL PHASE 15
3.3 DECOMMISSIONING PHASE 21
3.4 ALLOCATION OF RESOURCES 24
3.5 TRAINING AND HSE AWARENESS 24
3.6 DOCUMENTATION AND RECORD KEEPING 24
3.7 AUDITING 25
3.8 RESPONDING TO NON-COMPLIANCE 25
3.9 REVISION OF THE EMP 26
INTRODUCTION

1.1 INTRODUCTION

The following Environmental Management Programme (EMP) has been prepared by ERM Southern Africa (Pty) Ltd for Chevron South Africa (Pty) Ltd (hereafter referred to as Chevron). The EMP is for the construction, operation and decommissioning of a proposed Consolidated Waste Storage Facility, the temporary operation and decommissioning of existing Waste Storage Areas and possibly two Interim Hazardous Waste Storage Area at the Chevron Refinery in Milnerton, Cape Town. The new Consolidated Waste Storage Facility will be built at a suitable locality on the refinery property.

1.1.1 The Proposed Activities

Waste is generated at various locations within the refinery premises (e.g. at office buildings, the site laboratory and different locations at the plant). There are three existing waste storage facilities at the refinery currently used for the temporary storage of general and hazardous waste, namely:

1) Hazardous Waste Storage Area;
2) Salvage Yard; and
3) Scrap Metal Area.

In addition to the areas listed above, intermittent storage of building rubble and scrap metal occurs on site at times when construction and maintenance projects are underway.

Chevron proposes replacing the existing facilities with a Consolidated Waste Storage Facility for the temporary storage of waste. This new facility will be situated within the Refinery facility. The Existing Waste Storage Areas will be decommissioned. Depending on the timing of the construction of the Consolidated Waste Storage Facility in relation to other refinery infrastructure projects, two Interim Hazardous Waste Storage Areas may also be required.

1.1.2 Local Context

The construction, operation and decommissioning activities for the waste facilities will take place within the boundaries of the refinery. The area of the Consolidated Waste Storage Facility is approximately 6300m².

The entire construction footprint and the immediate surroundings are disturbed and devoid of natural vegetation. There are consequently no sensitive social or ecological areas that will be directly affected by on site activities. The new facility construction is expected to impact positively on waste management at the refinery.
1.2 **PURPOSE OF THE EMP**

The EMP has been prepared in accordance with Section 20 (b) of the National Environmental Management: Waste Act (Act 59 of 2008). The relevant activities are listed in Category A of the Schedule of Waste Management Activities published in terms of section 19(1) of the National Environmental Management: Waste Act, 2008 (GN 718) as follows:

- Category A, Activity 1: The storage, including the temporary storage, of general waste at a facility that has the capacity to store in excess of 100 m$^3$ of general waste at any one time, excluding the storage of waste in lagoons.
- Category A, Activity 2: The storage including the temporary storage of hazardous waste at a facility that has the capacity to store in excess of 35m$^3$ of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons.
- Category A, Activity 20: The decommissioning of activities listed in this Schedule.

This EMP will help with the management and implementation of environmental and social mitigation measures, as well as recommendations and commitments made in the Basic Assessment Report (BAR). The purpose of the EMP is to ensure that these recommendations are translated into practical management actions which can be adequately resourced and integrated into the project planning, implementation and closure phases. The EMP is therefore an environmental management tool used to ensure that undue or reasonably avoidable adverse impacts of construction, operation and decommissioning of a project are prevented and that the positive benefits of the projects are enhanced (1).

The overall aims of this EMP can be summarised as follows:

- Ensure continuing compliance with relevant South African environmental legislation and Chevron’s relevant policies and procedures;
- Provide a mechanism for ensuring that measures identified in the BAR to mitigate potentially adverse impacts are implemented;
- Ensure that employees and contractors are familiar with the environmental procedures to be followed and comply with the recommendations made within this document;
- Ensure that roles and responsibilities are clearly defined and are understood by employees and contractors; and

---

• Ensure that monitoring is undertaken to identify any potential negative environmental impacts.

The scope and level of detail of an EMP depends on the level of risk associated with the proposed activity. The EMP for the waste storage facilities at the Chevron Refinery is relatively simple given that the activity is regarded as low risk. Relatively few impacts were identified in the BAR and the significance of these impacts were evaluated as low or negligible.

The EMP is presented in draft form and will be submitted to the Department of Environmental Affairs (DEA) with the final BAR. The draft format of the EMP makes provision for updating during the detailed design and planning phase, and incorporation of any relevant conditions in the Environmental Authorisation (EA).

1.3 **STANDARDS AND GUIDELINES**

The legal and administrative requirements that are relevant to the decommissioning of existing temporary storage areas on the Refinery site, the use of two Interim Hazardous Waste Storage Areas while the Consolidated Waste Storage Facility is under construction and the construction and operation of a new consolidated temporary waste storage site, are as follows:

• National Environmental Management Act (Act No. 107 of 1998), as amended;
• NEMA EIA Regulations, 2006 (Government Notice No R. 385, R. 386 and R. 387);
• Environment Conservation Act (Act No. 73 of 1989);
• National Environmental Management: Waste Act (Act No. 59 of 2008);
• National Water Act (Act No. 36 of 1998);
• Remaining enforceable sections of the Atmospheric Pollution Prevention Act (Act No. 45 of 1965);
• National Environmental Management: Air Quality Act (Act No. 39 of 2004);
• City of Cape Town Air Quality Control By-Law, 4 February 2003;
• Major Hazard Installation (MHI) Regulations (Government Notice No R 692 of 30 July 2001);
• National Road Traffic Act (Act No. 93 of 1996), Regulations for the Transport of Dangerous Goods (August 2001);
• Community Fire Safety Bylaw (No 11257, Provincial Gazette 5832, 28 February 2002);
• National Heritage Resources Act (Act No. 25 of 1999);
• Minimum Requirements for Waste Disposal by Landfill (DWAF, 1998); and
It is the responsibility of Chevron to ensure that all relevant legal requirements are met during construction, operation and decommissioning of the facilities.

1.4 CHEVRON’S ENVIRONMENTAL MANAGEMENT POLICIES AND COMMITMENTS

The following refinery Environmental Management Policies and Commitments are relevant to the construction and operation of the waste facilities:

- Chevron Management of Waste Procedure (CDMS 179); and
- Standard environmental audit protocol for construction activities on site.

Operational procedures for the environmental management of new equipment and processes will be incorporated into the relevant existing procedures and guidelines.

1.5 SUMMARY OF IMPACTS ASSOCIATED WITH THE PROPOSED ACTIVITY

ERM has identified three broad categories of potential impacts associated with the existing and proposed temporary storage areas for hazardous and general waste:

- Nuisance type impacts, including noise and dust, associated with the transfer of waste between the different sites, the decommissioning of existing waste sites and the construction of the temporary (if required) and new waste storage facilities;
- Health and safety risks associated with the movement and handling of hazardous type waste during the construction and operational phase of the new consolidated temporary waste storage facility; and
- Potential contamination of soil and groundwater associated with spills of hazardous waste and potentially contaminated run-off from the storage areas.

This draft EMP includes management measures relevant to the above impacts in addition to management measures to control generic impacts of construction activities such as noise, dust etc.

For the operational phase of the proposed Consolidated Waste Storage Facility, relevant environmental management measures will be incorporated into existing Chevron operating guidelines, procedures and quality control systems.
The EMP describes mitigation measures and is partly prescriptive, identifying specific people to undertake certain tasks, in order to ensure that impacts on the environment are minimised. This section outlines the roles and responsibilities of those involved during the construction and operation phases at the Chevron facility and the reporting procedures to be followed.

For large, complex developments the implementation of the EMP typically involves internal project team members instructed and monitored through specialist control officers and representative monitoring committees. Such a structure is not regarded as necessary for the waste facilities, given the low level of risk and existing level of on-site disturbance. Chevron also has a number of environmental, health and safety standard policies and procedures (as listed in Section 1.4) as well as an in-house environmental department who are responsible for the implementation and monitoring of environmental plans for on-site development activities.

Table 2.1 identifies roles and responsibilities for the environmental management of the construction, operation and decommissioning phases of the waste storage facilities. Communication channels are illustrated in the flow diagram provided in Figure 5.1. The construction phase will be independently monitored and audited once a month by an external Environmental Control Officer (ECO).

Note that Chevron has an integrated approach to environment, health and safety and this is reflected in the listed roles and responsibilities.

### Table 2.1 Roles and responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finalisation of the Environmental Management Programme</td>
<td>Chevron Waste Management Environmental Specialist and ECO</td>
</tr>
<tr>
<td>Preparation of a Project Safety Management Plan</td>
<td>Chevron Project Manager and Contractor</td>
</tr>
<tr>
<td>On site HSE legal compliance</td>
<td>Chevron Safety Specialist</td>
</tr>
<tr>
<td>HSE evaluation of contractors</td>
<td>Chevron Safety Specialist</td>
</tr>
<tr>
<td>HSE induction training of contractors</td>
<td>Chevron Safety Specialist</td>
</tr>
<tr>
<td>Distribution of Chevron procedures to main contractors</td>
<td>Chevron Project Manager</td>
</tr>
<tr>
<td>Distribution of Chevron procedures to sub-contractors</td>
<td>Main contractor</td>
</tr>
<tr>
<td>Development of method statements</td>
<td>Contractors</td>
</tr>
<tr>
<td>Weekly safety audits</td>
<td>Contractor Project HSE Officer</td>
</tr>
<tr>
<td>Quarterly internal environmental audit during operation</td>
<td>Chevron Environmental Specialist</td>
</tr>
<tr>
<td>Recording and investigation of incidents</td>
<td>Contractor HSE Officer</td>
</tr>
<tr>
<td>Recording of HSE lessons learnt</td>
<td>Contractor HSE Officer to inform Chevron Project Manager</td>
</tr>
<tr>
<td>Role</td>
<td>Responsibility</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>Project HSE Review / Environmental</td>
<td>Chevron Project Manager, Chevron</td>
</tr>
<tr>
<td>Completion Statement</td>
<td>Environmental Specialist, Chevron Safety Specialist</td>
</tr>
<tr>
<td>External monthly environmental audits</td>
<td>Independent Environmental Control Officer</td>
</tr>
</tbody>
</table>
Figure 2.1: Responsibilities and communication channels during construction

Figure 2.2 Responsibilities and communication channels during operation
The EMP is presented in a tabular format under the following headings:

- Construction Phase;
- Operational Phase; and
- Decommissioning Phase.

3.1 CONSTRUCTION PHASE

In order to ensure compliance with environmental legislation requirements, the following actions are applicable to the construction phase (this is relevant only to the proposed Consolidated Waste Storage Facility and Interim Hazardous Waste Storage Areas, as the other waste facilities are existing).
<table>
<thead>
<tr>
<th>Activity</th>
<th>Objective</th>
<th>Actions to be undertaken to Mitigate Environmental Impact</th>
<th>Parameters for Monitoring</th>
<th>Responsibility</th>
<th>Frequency / Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Compliance with EMP</td>
<td>Confirm Chevrons and their Contractor’s commitment to adherence to EMP</td>
<td>Commitment / Actions Required / Key Controls</td>
<td>Contractor and ECO</td>
<td>Prior to construction</td>
</tr>
<tr>
<td></td>
<td>1.1 Ensure that approved EMP is available on the construction site.</td>
<td>Copy of signed EMP on construction site.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.2 Ensure that equipment is in place to meet EMP requirements.</td>
<td>Checklist of EMP requirements.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.3 Signed commitment from Contractors to comply with EMP.</td>
<td>Copy of signed EMP is available on site.</td>
<td></td>
<td>Chevron Project Manager and ECO</td>
<td>Prior to construction</td>
</tr>
<tr>
<td></td>
<td>1.4 Notify relevant authorities of start of work date (including DEA and CoCT).</td>
<td>Proof of notification</td>
<td></td>
<td>Chevron Project Manager</td>
<td>Prior to construction</td>
</tr>
<tr>
<td>2.</td>
<td>Planning and design</td>
<td>2.1 • The storage area for hazardous waste must have a firm, impermeable, and chemical resistant floor and a roof/appropriate covers to prevent direct sunlight and rain water from coming into contact with the hazardous waste.</td>
<td>Visual inspection of facility</td>
<td>Contractor and ECO</td>
<td>After construction</td>
</tr>
<tr>
<td></td>
<td>2.2 • The waste storage facility should be approved by a professional civil engineer and be compliant with recognized civil engineering standards. Adequate provision must be made to protect surface and ground water resources.</td>
<td>Approved plans signed off by professional civil engineer</td>
<td></td>
<td>Chevron Project Manager</td>
<td>Prior to construction</td>
</tr>
<tr>
<td>3.</td>
<td>Restriction of working areas</td>
<td>Limit activities to the development footprint to facilitate control and to minimise impacts on the environment.</td>
<td>Clearly defined boundaries of the development footprint are in place.</td>
<td>Contractor and ECO</td>
<td>Site preparation and during construction</td>
</tr>
<tr>
<td></td>
<td>3.1 • The Contractor shall ensure that all plant, labour and materials remain within the boundaries of the working area. All areas outside the working area shall be considered as ‘no go’ areas. • Work areas and access routes must be clearly demarcated to minimise environmental impact. Demarcation can take the form of danger tape or flagged pegs. • Vehicles, if parked on site, must be confined to a clearly demarcated area, if possible on a concrete surface. Surface contamination which may occur as a result of oil leaks from vehicle sumps must be avoided. Should contamination occur, contaminated sand must be disposed of at a licensed hazardous waste disposal site. • Chevron must ensure effective access control to prevent unauthorized entry to all temporary waste storage areas.</td>
<td>Site boundaries not extended or breached.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.2 Construction personnel involved in site preparation shall be trained to observe the defined site boundaries.</td>
<td>Work areas and routes are not extended or breached.</td>
<td></td>
<td>Contractor and ECO</td>
<td>Prior to construction</td>
</tr>
<tr>
<td>Activity</td>
<td>Objective</td>
<td>Actions to be undertaken to Mitigate Environmental Impact</td>
<td>Parameters for Monitoring</td>
<td>Responsibility</td>
<td>Frequency / Timing</td>
</tr>
<tr>
<td>----------</td>
<td>-----------</td>
<td>-----------------------------------------------------------</td>
<td>---------------------------</td>
<td>---------------</td>
<td>--------------------</td>
</tr>
<tr>
<td><strong>4. Air Quality</strong></td>
<td>Limit any changes to air quality caused by dust generation or vehicle emission.</td>
<td>4.1 • The modification to air quality will be minimized due to the low number of trucks given the small size of the consolidated waste storage facility. • Drive at moderate speeds on the site and access roads in order to minimise or avoid dust pollution (see Dust Control for additional measures).</td>
<td>Incident Report</td>
<td>Contractor and ECO</td>
<td>During construction and installation activities</td>
</tr>
<tr>
<td><strong>5. Fire protection</strong></td>
<td>Fire prevention and management</td>
<td>5.1 • Adequate fire fighting equipment must be available on site and in good working order (at least four all purpose 2.5 kg extinguishers) and tested in line with legal requirements. • The Fire Plan must be implemented. • The Emergency Response Plan must be readily available and a list of key contacts clearly displayed at the facility. • Emergency exits/assembly points must be clearly marked and communicated to staff and a drill should be undertaken at the start of work.</td>
<td>Fire fighting equipment in place is easily accessible.</td>
<td>Contractor and ECO</td>
<td>During construction</td>
</tr>
<tr>
<td><strong>6. Refuse and waste (refers to all solid waste, including construction rubble and excavated soil).</strong></td>
<td>Avoid site pollution and the accumulation of waste materials on site.</td>
<td>6.1 • Minimise, reduce, reuse and recycle waste materials wherever possible. All non-recyclable waste should be collected by a licensed waste removal contractor. • All non-recyclable waste must be removed off-site and disposed of at an appropriately licensed landfill site.</td>
<td>Visual inspection of site. Waste disposal manifest documentation from waste removal contractor. Review landfill waste license to ensure compliance.</td>
<td>Contractor and ECO</td>
<td>During construction</td>
</tr>
<tr>
<td>Activity</td>
<td>Objective</td>
<td>Actions to be undertaken to Mitigate Environmental Impact</td>
<td>Parameters for Monitoring</td>
<td>Responsibility</td>
<td>Frequency / Timing</td>
</tr>
<tr>
<td>----------</td>
<td>-----------</td>
<td>----------------------------------------------------------</td>
<td>---------------------------</td>
<td>---------------</td>
<td>-------------------</td>
</tr>
</tbody>
</table>
| 6.2      | • Chevron employees and Contractors are responsible for cleaning-up equipment and building waste at the end of construction.  
• The Contractor shall not dispose of any waste and/or construction debris by burning or burying.  
• Waste bins and skips must be used and the Contractor must ensure that where appropriate all waste is deposited in bins/skips for removal to an appropriate landfill site.  
• The bins shall be provided with lids to prevent contents blowing out.  
• Bins/skips shall not be used for any purpose other than waste collection and shall be emptied on a regular basis, timing is dependant on volumes of waste produced.  
• Waste reduction and recycling activities as defined in Chevron’s Management of Waste Procedure CDMS 179 should be implemented.  
| Relevant documentation for waste disposal must be prepared and filed (e.g. certificates of safe disposal). | Contractor and ECO | Throughout construction phase |
| 7.       | Provision of suitable sanitary arrangements for workers. | 7.1 • Existing toilets should be made available and used, if possible. Alternatively portable chemical toilets should be used.  
• Sanitation should be provided as stipulated in the Occupational Health and Safety Act and applicable regulations. | Visual inspection. | Contractor and ECO | During construction phase |
| 8.       | Limit dust emissions. | 8.1 • Although dust generation is likely to be minimal, mechanisms including wetting of stockpiles and the use of tarpaulins to cover trucks and stockpiles should be used as required. | Visual inspection of effectiveness of dust suppression methods. Complaints register. | Contractor and ECO | During construction phase |
| 9.       | Prevent potential contamination of soil from spills and/or fuel leaks from construction vehicles, or containers. | 9.1 • Fuels, oils, hydraulic fluid, etc. must be stored in properly contained areas so as to minimize accidental spillage.  
• Ensure that spill kits are provided and readily accessible.  
• No hazardous or toxic chemicals or substances should be stored where there could be accidental leakage into the subsurface.  
• Contamination which may occur as a result of oil leaks from construction vehicles must be avoided  
• Appropriate spill response plans and materials should be available to address potential leaks and spills.  
• Ensure that the waste storage facilities bund walls are of an adequate volume and should be of an impervious material. | Visual inspection of storage areas and spill kits. | Contractor and ECO | During construction phase |
<table>
<thead>
<tr>
<th>#</th>
<th>Description of Activity</th>
<th>Objective</th>
<th>Actions to be undertaken to Mitigate Environmental Impact</th>
<th>Parameters for Monitoring</th>
<th>Responsibility</th>
<th>Frequency / Timing</th>
</tr>
</thead>
</table>
| 10. | Noise generation (as a result of trucks carrying building materials to and from the site and construction activities) | Minimize any noise pollution | 10.1 • Equipment and construction vehicles used on-site must be in good condition and serviced regularly.  
• Contractors will comply with relevant noise regulations and bylaws.  
• Management of noise from trucks and other vehicles and the necessary use of horns, sirens.  
• A speed limit of 30km/hour on site to be enforced as per Chevron Vehicle Policy CDMS 172.  
• Any complaints received from neighbours must be reported to Chevron and measures must be taken to limit noise generation. | Vehicle and equipment maintenance records | Contractor and ECO | During construction |
| 11. | Traffic Control | Manage project activities that result in traffic in such a way that negative impacts on roads, as well as health and safety risks to local residents, contractors and employees are reduced. | 11.1 • Use of construction vehicles off-site (outside of the Refinery) should be limited to daylight hours.  
• Adequate road signage and warning lights indicating working and turning areas should be provided at and near the site.  
• Speed limits on and around the site should be enforced. | Complaints Register | Contractor and ECO | During construction |
| 12. | Occupational Health and Safety | Avoid or limit health and safety risks for all employees and contractors | 12.1 • Health and safety signage must be clearly displayed around the site.  
• The construction areas should be cordoned off to prevent people not involved in the project construction from accessing the area.  
• All machinery should be easily visible and secured during construction.  
• Trenches should be cordoned off with visible safety barriers.  
• Appropriate Personal Protective Equipment (PPE) should be worn by workers involved in the construction of the new site.  
• All workers should adhere to the Chevron Health and Safety Policy. | Visual inspection.  
Training of employees. | Contractor and ECO | During construction |
<table>
<thead>
<tr>
<th>#</th>
<th>Activity</th>
<th>Objective</th>
<th>Actions to be undertaken to Mitigate Environmental Impact</th>
<th>Parameters for Monitoring</th>
<th>Responsibility</th>
<th>Frequency / Timing</th>
</tr>
</thead>
</table>
| 13 | Site Clean Up and Rehabilitation | To restore any degradation caused by the construction and installation activities. | 13.1 • The Contractor must ensure that all temporary structures, equipment, materials and facilities used or created on-site for or during construction activities are removed once the project has been completed. The construction site shall be cleared and cleaned to the satisfaction of Chevron.  
• All installation equipment and excess aggregate, gravel, stone, concrete, bricks, temporary fencing and the like will be removed from the site upon completion of the work.  
• No discarded materials of any nature shall be buried.  
• Site rehabilitation to be completed as soon as possible after the completion of construction. | Visual inspection of site condition. | Contractor and ECO | Prior to operation |
3.2 **OPERATIONAL PHASE**

In order to ensure compliance with environmental legislation requirements, the following generic and specific requirements are applicable during the operational phase of the existing and proposed waste storage facilities.
<table>
<thead>
<tr>
<th>#</th>
<th>Activity</th>
<th>Objective</th>
<th>Actions to be undertaken to Mitigate Environmental Impact</th>
<th>Parameters for Monitoring</th>
<th>Responsibility</th>
<th>Frequency / Timing</th>
</tr>
</thead>
</table>
| 1. | Transport of wastes from the refinery to the consolidated waste facility. | Prevent contamination of soil and groundwater / storm water. | 1.1 • Ensure that workers are adequately trained to transport waste products.  
• Risk of spills and handling errors should be kept to a minimum, and if spillage occurs, it should be cleaned up immediately where possible.  
• Transport vehicles should have spills kits installed. | Inspection records | Chevron's Waste Management Environmental Specialist | Throughout operation phase |
| 2. | Spill and/ or leak management | Prevent potential spills or leaks during the operation of the waste storage facilities. | 2.1 • The facility must be designed to have a firm and impermeable floor and hazardous waste must be protected from the ingress and egress of rainwater.  
• The storage area for hazardous waste must have bunded walls with adequate capacity to maintain the maximum volume that is stored in that area.  
• The bunded walls should be maintained regularly.  
• Unauthorized access to the waste sites should be prevented through the use of signage and access control.  
• Containers used to store waste must be leak-proof and lids must be secure to prevent ingress and egress of rainwater (particularly where the facility is unroofed).  
• Ensure that the temporary waste storage facility is not overfilled.  
• Any significant spills or pollution incidents must be reported in terms of the National Environmental Management Act and the Water Act.  
• Rapid containment of spilled product near the source of the spill should be undertaken to ensure that the spill remains localised.  
• Chevron must ensure that proposed waste storage facility is included in their overall refinery emergency preparedness plan. Site specific procedures should relate to fire and spillage (on route and on site).  
• Provision of spill response materials and | Visual inspection of site conditions | Incident reports, Chevron’s Emergency Preparedness Plan | Throughout operation phase |
<table>
<thead>
<tr>
<th>Activity</th>
<th>Objective</th>
<th>Commitment / Actions Required / Key Controls</th>
<th>Parameters for Monitoring</th>
<th>Responsibility</th>
<th>Frequency / Timing</th>
</tr>
</thead>
</table>
| 3. Traffic control| Manage project activities that result in traffic in such a way that negative impacts on roads, as well as health and safety risks to local residents, contractors, employees and animals are reduced.                                                                                                                                     | • Personnel/employees involved in the operation of the waste storage facility must understand their individual responsibilities and how they should deal with spill incidents. These responsibilities should be documented, and training should be provided by the Contractors HSE Officer.  
• A suitably qualified Chevron employee must ensure compliance with operational procedures, and undertake quarterly internal audits.  
• Hazardous waste must be disposed of at an appropriately licensed waste disposal site. This material may not be burnt or remain on site for longer than three months. | Internal audit | - Complaints Register  
- Chevron’s Waste Management Environmental Specialist | Quarterly                                                                                                                   |
| 4. Storm water    | Prevent pollutants from entering the municipal storm water system                                                                                                                                                                                                                                                                                                  | • All outsourced drivers should obey Chevron’s speed limit of 30km/hr on site, or lower where applicable as per Chevron Vehicle Policy CDMS 172, as well as travelling between the site and excavation activities within the Refinery.  
• Trucks should use the new access road currently being constructed at Koeberg Road at all times, once it has been completed.  
• A storm water management plan must be implemented.  
• Ensure that run-off from the temporary waste storage will be controlled through a system of stormwater drains and sumps.  
• The sump should be regularly checked and emptied and the effluent be disposed of at the Refinery’s Effluent Treatment Plant.  
• A procedure must be implemented for the monitoring of surface water run-off from the site. | Inspection records | Chevron’s Waste Management Environmental Specialist                                                                 | Monthly, throughout operation phase |
<table>
<thead>
<tr>
<th>Activity</th>
<th>Objective</th>
<th>Actions to be undertaken to Mitigate Environmental Impact</th>
<th>Parameters for Monitoring</th>
<th>Responsibility</th>
<th>Frequency / Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Occupational Health and Safety</td>
<td>Avoid or limit health and safety risks for employees and contractors.</td>
<td>5.1 • Health and safety signage must be clearly displayed all round the temporary waste storage facility. • Employees/contractors should receive training on the correct safety procedures for any of the tasks for which they are responsible. A record of this training should be maintained by the employer or contractor. • All Chevron employees, as well as contractors should obey Chevron’s Health and Safety Policy as well as the Occupational Health and Safety Act (Act No. 85 of 1993). • Inclusion of the consolidated waste storage facility area in Chevron’s overall Emergency Preparedness Plan. Site specific procedures should relate to fire, spillage (on route and on site). • Use of PPE to protect on-site employees/contractors and the waste removal contractors from the effects of handling hazardous waste. • All waste stored on site must be adequately labelled and there should be no mixing of hazardous and general waste.</td>
<td>Visual inspection</td>
<td>Chevron’s Waste Management Environmental Specialist</td>
<td>Throughout operation phase</td>
</tr>
<tr>
<td>6. Waste Management</td>
<td>Prevent contamination of soil and groundwater as a result of improper handling, storage or disposal of waste.</td>
<td>6.1 • Make use of a reputable waste contractor to dispose of waste. • Ensure that any hazardous waste is disposed of at an appropriately licensed hazardous waste disposal site. • Retain all hazardous waste certificates as proof of safe disposal. • As far as possible ensure that scrap metals not stored at the new waste storage facility are stored in a closed bin and removed on a monthly basis by an accredited scrap merchant for recycling purposes. • Any containers containing hazardous waste must be characterized to reflect the size of container, contents as well as the date of</td>
<td>Audits on certificates as proof of safe disposal</td>
<td>Chevron’s Waste Management Environmental Specialist</td>
<td>Throughout operation phase</td>
</tr>
<tr>
<td>Activity</td>
<td>Objective</td>
<td>Actions to be undertaken to Mitigate Environmental Impact</td>
<td>Parameters for Monitoring</td>
<td>Responsibility</td>
<td>Frequency / Timing</td>
</tr>
<tr>
<td>----------</td>
<td>-----------</td>
<td>----------------------------------------------------------</td>
<td>---------------------------</td>
<td>---------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Minimize the creation of waste</td>
<td>6.2</td>
<td>• Implementation of waste reduction and recycling activities as defined in Chevron Management of Waste Procedure CDMS 179. &lt;br&gt;• A suitably qualified Chevron employee should ensure compliance with operational procedures, and undertake quarterly internal audits.</td>
<td>Audits</td>
<td>Chevron's Waste Management Environmental Specialist</td>
<td>During operation</td>
</tr>
<tr>
<td>Sanitation</td>
<td>Provide proper sanitation for all workers and subcontractors</td>
<td>7.1</td>
<td>• Adequate toilet facilities should be provided as stipulated in the Occupational Health and Safety Act regulations.</td>
<td>Visual inspection</td>
<td>Chevron's Waste Management Environmental Specialist</td>
</tr>
<tr>
<td>Fire protection</td>
<td>Fire prevention and management</td>
<td>8.1</td>
<td>• Prevent the use of hot-works and other potential sources of ignition in the vicinity of the waste facility as per Chevron’s existing HES and Risk Control procedures. &lt;br&gt;• Adequate fire fighting equipment must be available on site and in good working order (at least four all purpose 2.5 kg extinguishers) and tested in line with legal requirements. &lt;br&gt;• The Fire Plan must be implemented. &lt;br&gt;• The Emergency Response Plan must be readily available and a list of key contacts clearly</td>
<td>Fire fighting equipment in place is easily accessible.</td>
<td>Chevron's Waste Management Environmental Specialist</td>
</tr>
<tr>
<td>#</td>
<td>Description of Activity</td>
<td>Objective</td>
<td>Actions to be undertaken to Mitigate Environmental Impact</td>
<td>Parameters for Monitoring</td>
<td>Responsibility</td>
</tr>
<tr>
<td>----</td>
<td>-------------------------</td>
<td>-----------</td>
<td>----------------------------------------------------------</td>
<td>---------------------------</td>
<td>---------------</td>
</tr>
</tbody>
</table>
|    |                         |           | • Emergency exits/assembly points must be clearly marked and communicated to staff and drills should be undertaken at least once every six months.  
• Chevron must ensure that the proposed Consolidated Waste Storage Facility is included in their overall refinery emergency preparedness plan. Site specific procedures should relate to fire and spillage (on route and on site). |                          |               |                  |
3.3 **DECOMMISSIONING PHASE**

A detailed decommissioning and rehabilitation plan should be developed prior to the decommissioning of the proposed new Consolidated Waste Storage Facility. This plan should include, but should not be limited to, conditions regarding removal of infrastructure, management of waste and/or contaminated soil, dust and noise suppression and groundwater monitoring. The implementation of demolition procedures should also form part of the overall Decommissioning Plan for the Refinery.

The requirements included below are also relevant to the decommissioning of the existing Hazardous Waste Area; the Salvage Yard; and the Scrap Metal Area, as well as the two Interim Hazardous Waste Storage Areas, should they be required.
<table>
<thead>
<tr>
<th>#</th>
<th>Activity</th>
<th>Objective</th>
<th>Actions to be undertaken to Mitigate Environmental Impact</th>
<th>Parameters for Monitoring</th>
<th>Responsibility</th>
<th>Frequency / Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Compliance with EMP</td>
<td>1.1 Ensure that approved EMP is available on the decommissioning site.</td>
<td>Copy of signed EMP on construction site.</td>
<td>Contractor and ECO</td>
<td>Prior to decommissioning</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.2 Ensure that equipment is in place to meet EMP requirements.</td>
<td>Checklist of EMP requirements.</td>
<td>Contractor and ECO</td>
<td>Prior to decommissioning</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.3 Signed commitment from Contractors to comply with EMP.</td>
<td>Copy of signed EMP is available on site.</td>
<td>Chevron Project Manager and ECO</td>
<td>Prior to decommissioning</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.4 Notify relevant authorities of start of work date (including DEA and CoCT).</td>
<td>Proof of notification</td>
<td>Chevron Project Manager</td>
<td>Prior to decommissioning</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.5 During the time of decommissioning, Chevron should comply with all environmental legislation relevant to its decommissioning activities.</td>
<td></td>
<td>Contractor and ECO</td>
<td>During decommissioning</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Soil and Groundwater Contamination</td>
<td>2.1 Due to the nature of wastes stored on site, it is possible that contaminated soil may occur beneath the site:</td>
<td>Clearly defined boundaries of the development footprint are in place.</td>
<td>Contractor and ECO</td>
<td>Site preparation and during decommissioning.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• During decommission of the site, soil and groundwater samples should be taken and checked for subsurface contamination. Such soil would need to be excavated and appropriately disposed of, or treated in situ as part of the overall Decommissioning Plan (for the Consolidated Waste Storage Facility).</td>
<td>Site boundaries not extended or breached.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Refuse and waste (refers to all solid waste, including construction rubble and excavated soil.)</td>
<td>3.1 Minimise, reduce, reuse and recycle waste materials wherever possible. All waste should be collected by a authorised/registered waste removal contractor. All waste must be removed off-site and disposed of at a licensed landfill site. All contaminated material must be removed to an appropriately registered facility for such waste.</td>
<td>Visual inspection of site waste disposal manifest documentation from waste removal contractor.</td>
<td>Contractor and ECO</td>
<td>During decommissioning</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.2 Chevron employees and Contractors are responsible for cleaning-up of building waste and demolition material at the end of demolition.</td>
<td>Relevant documentation for waste disposal must be prepared and filed (e.g. certificates of safe disposal).</td>
<td>Contractor and ECO</td>
<td>Throughout decommissioning phase</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The Contractor shall not dispose of any waste and/or construction debris by burning or burying.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Waste reduction and recycling activities as defined in Chevron Management of Waste Procedure (CDMS 179) should be implemented.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Sanitation</td>
<td>4.1 Sanitation should be provided as stipulated in the Occupational Health and Safety Act and relevant regulations.</td>
<td>Visual inspection</td>
<td>Contractor and ECO</td>
<td>During decommissioning phase</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Dust Control (fugitive dust)</td>
<td>5.1 Although dust is likely to be minimal, mechanisms including wetting of stockpiles and the use of tarpaulins to reduce dust are recommended.</td>
<td>Visual inspection of effectiveness of dust control</td>
<td>Contractor and ECO</td>
<td>During decommissioning</td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Objective</td>
<td>Actions to be undertaken to Mitigate Environmental Impact</td>
<td>Parameters for Monitoring</td>
<td>Responsibility</td>
<td>Frequency / Timing</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
<td>---------------------------</td>
<td>-----------------------------</td>
<td>--------------------------</td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>Description of Activity</td>
<td>Commitment / Actions Required / Key Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>emissions, dust production due to transfer of certain wastes</td>
<td>cover trucks and stockpiles should be used as required.</td>
<td>suppression methods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Traffic Control</td>
<td>Manage project activities that result in traffic in such a way that negative impacts on roads, as well as health and safety risks to local residents, contractors and employees are reduced.</td>
<td>6.1 Use of construction vehicles should be limited to daylight hours outside of the Refinery. Adequate road signage and warning lights indicating working and turning areas should be provided at and near the site. Speed limits on and around the site should be enforced.</td>
<td>Complaints register</td>
<td>Contractor and ECO</td>
<td>During decommissioning</td>
<td></td>
</tr>
<tr>
<td>7. Occupational Health and Safety</td>
<td>Avoid or limit health and safety risks for all employees and contractors</td>
<td>7.1 Health and safety signage must be clearly displayed at the site. PPE needs to be worn by all contractors and/or employees involved in decommissioning and demolition activities. All workers should adhere to the Chevron Health and Safety Policy.</td>
<td>Visual inspection Training of employees</td>
<td>Contractor and ECO</td>
<td>During decommissioning</td>
<td></td>
</tr>
<tr>
<td>8. Site Clean Up and Rehabilitation</td>
<td>To restore any degradation caused by the construction and installation activities.</td>
<td>8.1 The Contractor must ensure that all temporary structures, equipment, materials and facilities used or created on-site for or during construction activities are removed once the project has been completed. The construction site shall be cleared and cleaned to the satisfaction of Chevron. All demolition equipment and excess aggregate, gravel, stone, concrete, bricks, temporary fencing and the like should be removed upon site closure. No discarded materials of any nature shall be buried.</td>
<td>Visual inspection of site condition</td>
<td>Contractor and ECO</td>
<td>After decommissioning</td>
<td></td>
</tr>
</tbody>
</table>
3.4 **ALLOCATE OF RESOURCES**

Financial and personnel resources must be allocated to the implementation of the EMP, including provisions for contractor training and environmental awareness, contingencies to deal with environmental emergencies, monitoring and auditing. Such resources must be available during the operational and closure, as well as the construction phase.

Environmental requirements requiring cost allocation must be clearly identified the terms of reference for contractors and suppliers to ensure these service providers budget effectively.

3.5 **TRAINING AND HSE AWARENESS**

Training and awareness raising around HSE issues is essential for ensuring that the EMP is effectively implemented and that unforeseen HSE incidents are managed timeously and appropriately. The ultimate responsibility for environmental training and awareness raising rests with Chevron. If the onsite waste management contractor is tasked with the provision of training, the course contents and approach should be reviewed by Chevron and the implementation thereof closely monitored.

It is suggested that the following be included in the approach to training and awareness raising:

- Induction course for all waste facility personnel and contractors including a description of Chevron’s expectations and specific responsibilities of waste facility workers with regard to HSE issues;
- Refresher courses as and when required;
- Focused training sessions in relation to specific tasks, such as the moving of wastes between sites; and
- Toolbox talks to alert workers to particular HSE concerns associated with their tasks for the day/period and to encourage generally responsible behaviour on site.

Courses should be provided by a qualified person and in a language and medium understood by contractors/employees.

3.6 **DOCUMENTATION AND RECORD KEEPING**

All documentation relevant to the implementation of the EMP during construction, operation and closure must be maintained on site in a structured and ordered manner, as per Chevron’s existing document control system. These documents should be distributed in a controlled manner to affected personnel and must also be made available for public / authority inspection, if requested.
Given the relatively small scale of the project and the associated low risks, the documentation and record keeping requirements will not be extensive. The type of documents that should be managed and retained include, at minimum:

- Method statements;
- Project specific HSE audit reports;
- Training material and records of attendance;
- Incident reports;
- Emergency preparedness and response procedures;
- Monitoring reports; and
- Minutes of key meetings with service providers and project team members.

3.7 **AUDITING**

Given the nature and scale of the facility environmental audits should be conducted quarterly by Chevron. In addition, Chevron should appoint an independent external auditor to audit the Consolidated Waste Storage Facility annually for the first two years and then every two years thereafter. After each audit a report should be submitted to the DEA and other relevant authorities. The audit must cover compliance with any specific licence conditions. Chevron has a standard audit protocol applicable to construction of new developments on site. This should be expanded to include the specific management actions identified in this EMP. The completed audit reports must be accurately dated and form part of the document control system. Chevron currently has the Chevron Community Advisory Panel which consists of representatives of the community surrounding the Refinery. A summary of the findings of the audit can be provided at these meetings in order to allow feedback to the ratepayers and other interested and affected parties.

Monthly external auditing will undertaken by the independent ECO during construction and the resultant independent audit reports will be sent to the DEA and other relevant authorities. As above a summary of the findings of the audit can be provided at the Community Advisory Panel meetings.

3.8 **RESPONDING TO NON-COMPLIANCE**

Responses to non-compliance may be initiated as follows, depending on the nature and scale of the transgression:

- From Chevron in response to transgression by the contractors and suppliers;
- From the main contractor in response to transgressions by sub-contractors and suppliers; and
• From the authorities in response to transgressions by Chevron, usually in relation to legal non-compliances.

Should Chevron choose to impose an incentive or disincentive scheme for conformance or non-conformance with EMP requirements, this scheme should be clearly described in contract documents and agreements, and should also be communicated during induction and training sessions. In order to justify a disincentive scheme such as fines or retention of fees, environmental controls identified in the EMP should be translated into specifications and also included in the contract documents.

3.9 **Revision of the EMP**

As explained in *Section 1.2*, this EMP has been formulated in draft so as to allow for appropriate changes and modifications subject to finalisation of the detailed design and planning stages. The EMP should be subject to review by senior management responsible for the project at the following stages of the project:

• Prior to the initiation of the construction phase to ensure that all relevant management actions have been included;
• Following the construction phase and after the initial use of the facility, to capture additional and unforeseen mitigation measures that are identified during these activities, and would be relevant to the operational phase;
• The Operational EMP should be reviewed at 3 year intervals to ensure that legislation changes are incorporated; and
• Prior to final decommissioning and closure.
Appendix E

Comments and responses
Report
Table E.1  Issues and Responses Report

Please note that in the interest of summarising all comments, the author has attempted to capture the comments or issues raised in a concise manner. All comments received during the draft BAR commenting period are included in Appendix F in full. Should any comments have been captured incorrectly or misinterpreted please feel free to contact ERM.

Comments received during Initial Notification and Scoping Comments Period

<table>
<thead>
<tr>
<th>Issues/Comments Raised</th>
<th>Commentator(s)</th>
<th>Source</th>
<th>Response from Project Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Department recommends that Chevron must align whatever infrastructure developments or upgrades on the site with this proposed consolidated waste storage facility as this will eliminate the need for the interim waste facilities and also, reduce potential negative impact on the receiving environment.</td>
<td>Mr S Arendse (DEA&amp;DP – Sub Directorate: Waste Management Licence)</td>
<td>Fax received 23 May 2011</td>
<td>Chevron will attempt as far as possible to align the developments and upgrades. However the timing is dependant on a number of factors including the decision-making timescale for this project. The area where the existing hazardous waste facility is located is the location of the new flaring system which is important to the overall operation of the Chevron facility, the simultaneous operation of the new flare and the existing hazardous waste facility would be impractical at this proximity. Unless the new Consolidated Waste Facility is built in time the waste will need to be stored temporarily prior in order to allow for the start of operation of the flare.</td>
</tr>
<tr>
<td>The report does not present a detailed decommissioning process and assessment in terms of the prevention of contamination of the environment during the decommissioning of the existing facilities hazardous waste facilities.</td>
<td>Mr S Arendse (DEA&amp;DP – Sub Directorate: Waste Management Licence)</td>
<td>Fax received 23 May 2011</td>
<td>Decommissioning of the existing facilities will entail the removal of the hard standing areas where the existing sites are located. This will occur once all wastes have been collected and/or moved from the existing sites. The impacts associated with this have been included in Section E 5 of the BAR and recommendations included in Section E 8. The Decommissioning Phase EMP table included in Appendix D includes mitigation and management measures for the decommissioning of the existing waste facilities.</td>
</tr>
<tr>
<td>It is recommended that all hazardous waste disposal sites and sumps be lined, with an appropriate liner system to prevent any contamination of soil and groundwater.</td>
<td>Mr S Arendse (DEA&amp;DP – Sub Directorate: Waste Management Licence)</td>
<td>Fax received 23 May 2011</td>
<td>The design of the proposed Consolidated Waste Facility includes impermeable lining and sumps in order to prevent contamination of soil and groundwater.</td>
</tr>
<tr>
<td>Issues/Comments Raised</td>
<td>Commentator(s)</td>
<td>Source</td>
<td>Response from Project Team</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>The proposed external audit periods for the Interim hazardous waste storage areas and consolidated hazardous waste storage area should be revised, DEA&amp;DP requests that the audits should be conducted annually and not every 2 or 3 years.</td>
<td>Mr S Arendse (DEA&amp;DP – Sub Directorate: Waste Management Licence)</td>
<td>Fax received 23 May 2011</td>
<td>External audits will be conducted annually, for the first 2 years. Thereafter they will be conducted every 2 years.</td>
</tr>
<tr>
<td>Ensure that recommendations for the hazardous waste storage areas and facilities are implemented as proposed in the EMP and Chevron Management of waste procedures (CDMS 197) report and that audit reports are timeously submitted to the appropriate authorities.</td>
<td>Mr S Arendse (DEA&amp;DP – Sub Directorate: Waste Management Licence)</td>
<td>Fax received 23 May 2011</td>
<td>All recommendations will be implemented as proposed in the BAR and draft EMP. Audit reports will be submitted timeously to the relevant authorities.</td>
</tr>
<tr>
<td>The report does not clearly indicate if reuse, recycling and recovery in terms of separation and sorting of waste will take place on site of some waste materials. If this does occur it may trigger more waste listed activities, please clarify.</td>
<td>Mr S Arendse (DEA&amp;DP – Sub Directorate: Waste Management Licence)</td>
<td>Fax received 23 May 2011</td>
<td>Some recovery and sorting of certain non-hazardous wastes may take place on site however the quantities will not be such that any additional listed activities are triggered. Recyclable material would be collected by an authorised/registered waste contractor and recycled off site.</td>
</tr>
<tr>
<td>It is important that certificates for safe disposal and receipts of the facility where the waste is taken are requested from service providers and kept on file for audit purposes.</td>
<td>Mr S Arendse (DEA&amp;DP – Sub Directorate: Waste Management Licence)</td>
<td>Fax received 23 May 2011</td>
<td>This is standard procedure at Chevron and will be implemented for this project.</td>
</tr>
<tr>
<td>Record must be kept of the amount of waste that leaves the premises as the quantities of waste needs to be captured on the Departmental Integrated Pollutant Waste Information System (IPWIS) on the following website – <a href="http://ipwis.wcape.gov.za">http://ipwis.wcape.gov.za</a></td>
<td>Mr S Arendse (DEA&amp;DP – Sub Directorate: Waste Management Licence)</td>
<td>Fax received 23 May 2011</td>
<td>Records are currently kept of the amounts of waste leaving the site. Chevron are aware of the requirement and will ensure that the waste contractor keeps records of the waste leaving the site and ensures that that the DEA&amp;DP requirement is met.</td>
</tr>
<tr>
<td>It is recommended that the Chevron Management of Waste Procedures (CDMS 179) is updated in terms of handling hazardous waste is accordance with the NEM:WAS and not Environmental Conservation Act (No. 73 of 1989)</td>
<td>Mr S Arendse (DEA&amp;DP – Sub Directorate: Waste Management Licence)</td>
<td>Fax received 23 May 2011</td>
<td>Chevron is in the process of making these changes to CDMS 179 and the document should be finalised by the end of June.</td>
</tr>
<tr>
<td>Issues/Comments Raised</td>
<td>Commentator(s)</td>
<td>Source</td>
<td>Response from Project Team</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------</td>
<td>--------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Section B: 7a Solid Waste Management (Pg. 6 of Draft BAR): Q: How will the construction solid waste be disposed of? A: Solid Waste will be disposed of by an authorised waste contractor.</td>
<td>City of Cape Town Consolidated Comments (Solid Waste Management Department – Annette Naude)</td>
<td>Fax, dated 23 May 2011</td>
<td>Please note that the wording has been modified. During decommissioning of the existing hazardous waste site, should it be identified that any of the construction waste has been contaminated this will be disposed of by a suitable, authorised waste contractor to a suitably authorised facility. Chevron will ensure that the waste contractor is registered with the City of Cape Town Solid Waste Planning Department.</td>
</tr>
<tr>
<td>Section B: 7a Solid Waste Management (Pg6 of Draft BAR): Q: Where will the construction solid waste be disposed of? A: Solid waste will be managed as per CDMS 179 (Appendix G).</td>
<td>City of Cape Town Consolidated Comments (Solid Waste Management Department – Annette Naude)</td>
<td>Fax, dated 23 May 2011</td>
<td>Please note that wording of this has been modified to include the reuse and recycling of construction solid waste. See response above.</td>
</tr>
<tr>
<td>Section B: 7b Liquid Effluent (Pg 7 of Draft BAR): The contact person at the Vissershok Waste Treatment Facility is no longer Craig Mitchell as indicated in the Draft BAR. The new contact person and details must be sought and corrected in the Draft BAR.</td>
<td>City of Cape Town Consolidated Comments (Solid Waste Management Department – Annette Naude)</td>
<td>Fax, dated 23 May 2011</td>
<td>Updated in BAR.</td>
</tr>
<tr>
<td>Issues/Comments Raised</td>
<td>Commentator(s)</td>
<td>Source</td>
<td>Response from Project Team</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------------</td>
<td>-------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Section B 14: Legislation (pg. 11 of Draft BAR):</td>
<td>City of Cape Town Consolidated Comments (Solid Waste Management Department – Annette Naude)</td>
<td>Fax, dated 23 May 2011</td>
<td>This has been included in Section B 14.</td>
</tr>
<tr>
<td>• Include the Consumer Protection Act, Act 68 of 2008 for the return of Compact Fluorescent tubes (CFL), etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section C 3: Groundwater, soil and geological stability of the site (Pg. 12 of Draft BAR):</td>
<td>City of Cape Town Consolidated Comments (Solid Waste Management Department – Annette Naude)</td>
<td>Fax, dated 23 May 2011</td>
<td>The Consolidated Waste Facility design includes the requirement for impermeable floors. Recommendations are included in Section E 8, in the unlikely event that leaks should occur in the floor. Chevron will ensure the effective and safe clean up of such spills and the leaks will be fixed as soon as possible. Agreed Alternative S3 has been ruled out as a location of the proposed Consolidated Waste Facility by the BAR due to the Swartland Renosterveld wetland.</td>
</tr>
<tr>
<td>• All three site alternatives have a shallow water table of &lt;1.5m. The design specifications must allow for impermeable floors as well as mitigation if leaks occur in the floors.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• S3 is unacceptable in terms of the Swartland Renosterveld wetland.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section E 3: Impacts that may result from the construction phase (Pg. 22 of Draft BAR):</td>
<td>City of Cape Town Consolidated Comments (Solid Waste Management Department – Annette Naude)</td>
<td>Fax, dated 23 May 2011</td>
<td>During construction and decommissioning activities, building waste generated (from the decommissioning of the Existing Hazardous Waste Facility) could possibly be contaminated. This would then have to be disposed of at a licensed waste facility.</td>
</tr>
<tr>
<td>• Indirect Impacts: Builders rubble is described to possibly contain contaminated material that will have an indirect impact on landfill airspace. This description deviates from the definition of ‘non-hazardous waste’ in Appendix G section 4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section E 8: Recommendation of Practitioner (pg. 30 of Draft BAR):</td>
<td>City of Cape Town Consolidated Comments (Solid Waste Management Department – Annette Naude)</td>
<td>Fax, dated 23 May 2011</td>
<td>The wording of the requirement in Section E 8: Intermittent storage of building rubble on various open areas on the refinery site during specific building and maintenance operations, has been modified to specify that contaminated rubble should not be stored in open areas at the Refinery.</td>
</tr>
<tr>
<td>• Ensure that there is no contaminated rubble on open areas.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issues/Comments Raised</td>
<td>Commentator(s)</td>
<td>Source</td>
<td>Response from Project Team</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Appendix G: CDMS 179 Section 5.1 and 5.2:</td>
<td>City of Cape Town Consolidated Comments (Solid Waste Management Department – Annette Naude)</td>
<td>Fax, dated 23 May 2011</td>
<td>Chevron is in the process of making these changes to CDMS 179 and the document should be finalised by the end of June.</td>
</tr>
<tr>
<td>• Section 5.1 and 5.2: There is a contradiction and duplication of activity 20. The flow diagram for probably hazardous waste (B) ends in activity 20 (Input waste volumes into Essential Suite and file WM document). The flow diagram for non-hazardous waste (A) starts with activity 20 (guideline for managing refuse container).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Section 5.1: The flow diagram for probably hazardous waste (B) did not address activity 12.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Section 5.2: The flow diagram for non-hazardous waste (A) moves from activity 20 to activity 33. In activity 26, disposal of hazardous waste. There must be a misprint or error of disposing hazardous waste in non-hazardous waste flow chart?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Section 5.4: Include ‘licences’ in the statement “…to ensure compliance to permits and regulations”.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Section 5.5: Hazardous substances may need to be reclassified in terms of SANS 10234 in terms of the Global Harmonised System. A possible NEM: WA requirement.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CoCT has indicated that they have no objection to the application subject to the following:</td>
<td>CoCT: City Health: Environmental Health Branch (Leon Collie)</td>
<td>Fax, dated 23 May 2011</td>
<td>The relevant sections of these regulations will be complied with as necessary.</td>
</tr>
<tr>
<td>1. The yard must be rodent proofed in accordance with the Government Rodent proofing regulations.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Part 3 of the City of Cape Town Environmental Health By-law deals with medical waste management and requires all generators and transporters of medical waste to register with the City of Cape Town Health Department.</td>
<td>CoCT: City Health: Environmental Health Branch (Leon Collie)</td>
<td>Fax, dated 23 May 2011</td>
<td>No medical waste would be stored at any of the existing or proposed waste sites at the Refinery.</td>
</tr>
<tr>
<td>The Erf number for the proposed activity must be clearly indicated on the cover page, front page and in the description of the activity in Section B1 of the BAR.</td>
<td>CoCT: Environmental Resource Management Department – Environment and Heritage Management Branch (Katy Spalding)</td>
<td>Fax, dated 23 May 2011</td>
<td>This has been modified in the Final BAR.</td>
</tr>
<tr>
<td>Issues/Comments Raised</td>
<td>Commentator(s)</td>
<td>Source</td>
<td>Response from Project Team</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>The Department supports the preferred alternative S1 for the proposed consolidated waste storage facility as well as the recommendations provided by the Environmental Assessment Practitioner.</td>
<td>CoCT: Environmental Resource Management Department – Environment and Heritage Management Branch (Katy Spalding)</td>
<td>Fax, dated 23 May 2011</td>
<td>Alternative S1 is that preferred by Chevron. All relevant recommendations have been included in the draft EMP and will be followed by Chevron.</td>
</tr>
<tr>
<td>The seasonal Swartland (shale) Renosterveld wetland area identified on the eastern portion of the site for Alternative S3 must be delineated and protected from any suture disturbances or development on the site. A specialist report delineating the wetland and proposing rehabilitation measures should be provided with the Final BAR and the proposed rehabilitation measures included in the EMP. The owner of Chevron must acknowledge the wetland and implement recommended rehabilitation measures to support the wetland habitat and ecosystem.</td>
<td>CoCT: Environmental Resource Management Department – Environment and Heritage Management Branch (Katy Spalding)</td>
<td>Fax, dated 23 May 2011</td>
<td>In terms of this process Alternative S3 was ruled out as an option for the location of the Consolidated Waste Site due to the presence of the Swartland Renosterveld wetland. The preferred Alternative is Alternative S1 which does not require any disturbance to the wetland and therefore no further specialist input is required.</td>
</tr>
<tr>
<td>The owner is bound to comply with and enforce compliance by contractors with provisions of the EMP during all phases of the development. The owner shall ensure that the EMP forms part of the contractor’s documentation.</td>
<td>CoCT: Environmental Resource Management Department – Environment and Heritage Management Branch (Katy Spalding)</td>
<td>Fax, dated 23 May 2011</td>
<td>Agreed. Requirement 1.3 of the construction and operation EMP tables requires that Chevron have signed commitment from the Contractors to comply with the EMP.</td>
</tr>
<tr>
<td>The owner shall appoint, at his/her cost, an independent Environmental Control Officer (ECO), with appropriate environmental qualifications, to oversee compliance with the EMP during the construction phase of the Consolidated Waste Treatment Facility as well as the follow up audits during the operational phase. The ECO shall liaise with Council’s environmental officers and submit audit reports on a regular basis. Such an appointment is to be submitted to the City of Cape Town Regional Manager: Environmental Resource Management for record keeping purposes.</td>
<td>CoCT: Environmental Resource Management Department – Environment and Heritage Management Branch (Katy Spalding)</td>
<td>Fax, dated 23 May 2011</td>
<td>A suitably qualified independent ECO will be appointed by Chevron to undertake the construction phase audits (operational phase audits will also be undertaken by a suitably qualified ECO). The details of the ECO will be provided to the relevant authorities (including the DEA, DEA&amp;DP and CoCT).</td>
</tr>
<tr>
<td>The owner shall make good any damage to the environment caused as a result of non-compliance with the CEMP.</td>
<td>CoCT: Environmental Resource Management Department – Environment and Heritage Management Branch (Katy Spalding)</td>
<td>Fax, dated 23 May 2011</td>
<td>Chevron have committed to compliance with the EMP. However should any damage to the environment result from non-compliance with the CEMP, this will be rectified by Chevron.</td>
</tr>
<tr>
<td>Issues/Comments Raised</td>
<td>Commentator(s)</td>
<td>Source</td>
<td>Response from Project Team</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>The owner is to submit notification of start of work on site and thereafter regular compliance checklists to the City of Cape Town Regional Manager: Environmental and Heritage Resource Management Department.</td>
<td>CoCT: Environmental Resource Management Department – Environment and Heritage Management Branch (Katy Spalding)</td>
<td>Fax, dated 23 May 2011</td>
<td>Notification requirement included in Point 1.4 of the construction and decommissioning tables of the EMP. The audit reports to be provided to the DEA can also be provided to the CoCT.</td>
</tr>
<tr>
<td>In conclusion the City of Cape Town has no objection in principle to waste management licence application; however all of the comments, conditions and concerns raised in this letter must be addressed in the Final Basic Assessment Report and submitted to this office in the form of 1 hard copy and 1 electronic CD version.</td>
<td>CoCT: Environmental Resource Management Department – Environment and Heritage Management Branch (Katy Spalding)</td>
<td>Fax, dated 23 May 2011</td>
<td>See responses to CoCT comments above. As requested 1 hard copy and 1 electronic copy of the Final BAR to be submitted to the DEA will be provided to the CoCT.</td>
</tr>
<tr>
<td>The Draft BAR sent to us under cover of your email on 6 April 2011 has been studied and we are of the opinion that adequate measures are proposed to prevent environmental degradation. The proposed preferred alternative for siting the facility would be our choice as well; and we are in agreement with the conditions and recommendations as set out in Section 8 of the Draft BAR. We have no additional comments and must commend you on a thorough and detailed report,</td>
<td>Neil van Wyk (Friends of Rietvlei)</td>
<td>Emailed 10 May 2011</td>
<td>Thank you for the positive comments.</td>
</tr>
<tr>
<td>Quote: ‘the licence holder must appoint an independent external auditor’ - would it not serve the interests of the affected parties better if the Affected Parties nominate an independent external auditor?</td>
<td>Mike Channing (Table View Ratepayers Association)</td>
<td>Emailed received 12 April 2011</td>
<td>The details of the suitably qualified independent external auditor will be provided to the relevant authorities prior to the audit.</td>
</tr>
<tr>
<td>Quote: ‘an audit report for submission to the authorities’ - we would like this report to be made public; maybe an annual public meeting where the findings are released would afford the general public an opportunity to be informed of all the good changes being made at Chevron.</td>
<td>Mike Channing (Table View Ratepayers Association)</td>
<td>Emailed received 12 April 2011</td>
<td>Chevron currently has the Chevron Community Advisory Panel which meets monthly and consists of representatives of the community surrounding the Refinery. A summary of the findings of the audit could be provided at these meetings in order to allow feedback to the ratepayers and other interested and affected parties.</td>
</tr>
</tbody>
</table>
Appendix F

Public Participation
Documentation
Stakeholder Database
<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Authorities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morne Theron</td>
<td>Environmental &amp; Heritage Management Branch: District B &amp; C (City of Cape Town)</td>
<td>Senior Environmental Professional</td>
</tr>
<tr>
<td>Pat Titmuss</td>
<td>City of Cape Town: Environmental and Heritage Management (Districts B &amp; C - Blauuwberg Administration)</td>
<td>Regional Manager</td>
</tr>
<tr>
<td>Katy Spalding</td>
<td>City of Cape Town: Environmental and Heritage Management (Districts B &amp; C - Blauuwberg Administration)</td>
<td>Environmental Professional</td>
</tr>
<tr>
<td>Derril Daniels</td>
<td>Department of Water Affairs</td>
<td>Deputy Director: BERG CMA</td>
</tr>
<tr>
<td>Busi Bele</td>
<td>Department of Water Affairs</td>
<td>Berg WMA: Water quality Management</td>
</tr>
<tr>
<td>Gavin Visser</td>
<td>City of Cape Town</td>
<td>Fire Chief</td>
</tr>
<tr>
<td>Gottlieb Arendse</td>
<td>Department of Environmental Affairs and Development Planning</td>
<td>Director: Waste Management</td>
</tr>
<tr>
<td>S Arendse</td>
<td>Department of Environmental Affairs and Development Planning</td>
<td>Waste Management Licensing</td>
</tr>
<tr>
<td>Eddie Hannekom</td>
<td>Department of Environmental Affairs and Development Planning</td>
<td>Director: Waste Disposal Management</td>
</tr>
<tr>
<td><strong>Councillors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cllr. I. Neilson</td>
<td>City of Cape Town</td>
<td>Ward Councillor</td>
</tr>
<tr>
<td>Elizabeth Berry</td>
<td>City of Cape Town</td>
<td>Ward Councillor for Century City, Marconi Beam, Milnerton Ridge, Montague Gardens, phoenix, Rietvlei, Table View, Sunset Beach, Sunridge, Killaarney Gardens, Milnerton, Flamingo Vlei, Sunset Links, Joe Slovo Park, and Royal Ascot.</td>
</tr>
<tr>
<td>Hlumile Stemela</td>
<td>City of Cape Town</td>
<td>Ward Councillor: Du Noon</td>
</tr>
<tr>
<td>Heather Brenner</td>
<td>City of Cape Town</td>
<td>Chairman: Blaauwberg Subcouncil</td>
</tr>
<tr>
<td>Peter Deacon</td>
<td>City of Cape Town</td>
<td>Blaauwberg Area Co-ordinator</td>
</tr>
<tr>
<td>Bernadette le Roux</td>
<td>City of Cape Town</td>
<td>Ward Councillor</td>
</tr>
<tr>
<td><strong>Chevron Community Advisory Panel</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brenda Kirsten</td>
<td>Bothasig Ratepayers Association</td>
<td></td>
</tr>
<tr>
<td>Theodore Wiehahn</td>
<td>Killarney Gardens Property</td>
<td>Owners Association</td>
</tr>
<tr>
<td>Kevin Thorpe</td>
<td>Milnerton Residents Association</td>
<td></td>
</tr>
<tr>
<td>Joachim Fassmann</td>
<td>Milnerton Residents Association</td>
<td></td>
</tr>
<tr>
<td>Genni Easton</td>
<td>Table View Residents Association</td>
<td></td>
</tr>
<tr>
<td>Tandiswa Stokwe/ Tokozile Jini</td>
<td>SANCO (Du Noon)</td>
<td></td>
</tr>
<tr>
<td>Zoliswa Gila</td>
<td>Doornbach</td>
<td></td>
</tr>
<tr>
<td>Lennox Stekela</td>
<td>Joe Slovo Park</td>
<td></td>
</tr>
<tr>
<td>Danny Bolton</td>
<td>Richwood Ratepayers Association</td>
<td></td>
</tr>
<tr>
<td>Gary Irlam</td>
<td>Edgemead Residents Association</td>
<td></td>
</tr>
<tr>
<td>Graham Sprake</td>
<td>Parklands Homeowners</td>
<td>Association</td>
</tr>
<tr>
<td>Skead Theunissen</td>
<td>Edgemead Residents Association</td>
<td>Parklands community</td>
</tr>
<tr>
<td>Tabisa Twaku</td>
<td></td>
<td>organisation</td>
</tr>
<tr>
<td>Name</td>
<td>Organisation</td>
<td>Role</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Enid Sitole</td>
<td>Parklands community organisation</td>
<td></td>
</tr>
<tr>
<td>D L (Israel) Nkosie Du Noon</td>
<td>Du Noon representative</td>
<td></td>
</tr>
<tr>
<td>Reggie Brown</td>
<td>Project Management Consultant</td>
<td></td>
</tr>
<tr>
<td><strong>Neighbours</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lynn Marais</td>
<td>Improvon Developments</td>
<td>Project Co-ordinator</td>
</tr>
<tr>
<td>Martin Burr</td>
<td>Improvon Developments</td>
<td>Environmental Hydrologist</td>
</tr>
<tr>
<td>Ritchie Morris</td>
<td>Heartland, Theo Marais Sports Complex (Koeberg Road)</td>
<td>Facilities Manager</td>
</tr>
<tr>
<td>Debbie Newman</td>
<td>Milnerton Fire Station</td>
<td></td>
</tr>
<tr>
<td>Francis van der Byl</td>
<td>Milnerton Traffic Department</td>
<td></td>
</tr>
<tr>
<td>Michael Prag</td>
<td>Potsdam</td>
<td>Manager</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neil van Wyk</td>
<td>Friends of Rietvlei</td>
<td>Member</td>
</tr>
<tr>
<td>Mike Longden-Thurgood</td>
<td>Interested Resident</td>
<td></td>
</tr>
<tr>
<td>Mike Channing</td>
<td>Table View Ratepayers' Association</td>
<td></td>
</tr>
<tr>
<td>George Sieraha</td>
<td>Greater Cape Town Civic Alliance</td>
<td>Portfolio – Heritage &amp; Environment</td>
</tr>
<tr>
<td>Andy Birkinshaw</td>
<td>Interested Party</td>
<td></td>
</tr>
</tbody>
</table>
Proof of Advert
UNIONS TOLD TO CAMPAIGN FOR ANC

It will be President Zille, if we don’t unite — Vavi

Quinton Hatlinge
Political Writer

Both the ANC and the federation of trade unions have warned of an uphill battle if we don’t unite on the issue of job losses in the province.

"We want a progressive society where we believe in one country, one people. We want a progressive society where there is no room for racism or xenophobia," said Vavi.

"The ANC must make it clear that they support the federation of trade unions on this issue," he said. "We need a strong message to be sent to the workers that we stand united against job losses."
Win with Tabletalk and Red Riding Hood

The Littlepigtails Children’s Theatre Company will be performing one of their most popular shows in the main theatre at the Baxter Theatre complex. Red Riding Hood will run every day at 10.30am until Saturday April 9.

This fairytale follows the well-loved story of the naughty little girl who disobeys her mother and instead of taking the safe road to visit her grandmother, goes into the wood where she encounters a big bad wolf (in this adaptation a rather stupid Loopy-de-Loop type who is an on-musical-hall star).

The fairytale was adapted and directed by Elton John Duffield from Eddengear, who has been working at the Baxter since 1990.

This production stars Niki Louw from Claremont as Red Riding Hood, Lianne Valentine of Grassy Park as Granny and Red Riding Hood’s Mother, with Karen Viljoen from Table View as Jimmy the woodcutter and Elton John Duffield as the Big Bad Wolf.

Music and lyrics by Pippa Duffield and choreography is by Niki Louw. The show lasts 40 minutes and is suitable for the whole family.

Tickets are R85 each, Book at Computicket. For block bookings or queries, call Elton on 021 356 0364 or 021 358 5900 or call the Baxter Theatre on 021 462 3666.

To be in line to win one of five pairs of double tickets to see the show on Saturday morning, SMS RED with your name and the suburb you live in to 94440. SMSes cost R2.

What’s On

Youth Literature price
Sun&am and Table talk are looking for entries for the Sam & Pam for Youth Literature and they want a story in which hope plays a role.

Categories are English, Afrikaans, Ngisu languages, Sosotho, Setswana, Xitsonga, and Xhosa. Poems and manuscripts in any of the official languages will be accepted.

In each category there are two prizes: gold (R12 000 in cash and publication) and silver (R6 000 in cash and publication).

The deadline is Thursday June 30 and no email submissions are allowed. Log on to www.bns.co.za or www.tabletalk.co.za for entry forms or contact Danielle van Rooyen at Table talk on 021 699 3115 or dvanrooyen@sun.co.za for details.

Music contest renamed

The Sam & Pam competition which has given young music students the opportunity to perform and catch the eye on a national stage for more than two decades, is continuing under a new banner – the Hubert van der Spuy National Music Competition.

The competition’s new name honours its founder for his contribution to music development in South Africa, at the universities of Durban-Westville and Western Cape and as a professor at Unisa.

The Sam & Pam competition was launched by the ‘Tygerburg branch of the South African Society of Music Teachers (SASMT) 25 years ago. It provides a platform for promising young musicians to take their music to a national level and to learn from each other.

It has placed several young musicians on the road to successful music careers and even international acclaim.

A special incentive for development groups from disadvantaged communities introduced last year, enables these candidates to compete on equal terms with candidates from other communities.

The closing date for this year’s competition is Monday, April 3. Judgement in the main contest will start on the end of May.

About 70 candidates will eventually be selected to compete over four rounds at the Hugo Lambrecht Auditorium in Parkow from Monday, September 1 to Thursday, September 4. Meals and a host of other prizes are at stake.

There are four categories: piano, strings, woodwind and brass instruments and other instruments (percussion, recorder, classical guitar and harp), with a sub-category for development groups.

The only limitation is that candidates must still be at the time of competition at high school.

For more information, call 021 359 9135 or send a fax to 021 359 9135.
Site Notice
Notice of Environmental Impact Assessment
Application for Waste Management Licence

Invitation to Comment

Chevron South Africa (Pty) Ltd (Chevron) intend to apply for a Waste Management Licence (WML) from the Department of Environmental Affairs (DEA) in accordance with Section 20(b) of the National Environmental Management: Waste Act, 2008 (Act no. 59 of 2008) for existing and proposed temporary waste storage facilities at the Chevron Refinery in Milnerton.

At present, there are three separate sites on the site used for the temporary storage of general and hazardous waste. Chevron proposes to construct one consolidated waste facility for the temporary storage of waste.

The relevant activities are listed in Category A of the Schedule of Waste Management Activities (GN 718 of July 2009). Category A activities require a Basic Assessment (BA) as per the Environmental Impact Assessment (EIA) Regulations made in terms of NEMA (Act No. 107 of 1998).

ERM Southern Africa (Pty) Ltd is the independent consultant for the WML application. The BA Report is available at the following locations:
- Tableview Library (Birkenhead Road, Tableview)
- Milnerton Library (Plenaar Road, Milnerton)
- Website: www.erm.com/ChevronRefineryCapeTown
- Chevron Refinery, Milnerton

To register as an Interested and Affected Party and/or comment on the BA report please contact Claire Alborough of ERM on (021) 702 9100, (021) 701 7900 (fax); or Claire.Alborough@erm.com, by 23 May 2011.

Please quote the following reference number in all correspondence: DEA Ref. no.: 12/9/11/L287/9

Notice is given of a Public Participation Process and the intention to apply for a WML in terms of Section 20(b) of NEM-WA (Act No. 59 of 2008). The proposed activity triggers Category A Activity 1.2 and 20 of GN R 718.
Proof of Notification
Claire Alborough

From: Claire Alborough
Sent: 06 April 2011 02:05 PM
To: 'gmarends@pgwc.gov.za'
Subject: Notice of Environmental Impact Assessment: Chevron Waste Management Licence Application

DEA Ref. no.: 12/9/11/L287/9
ERM Ref: 0114053


Dear Gottlieb Arendse,

Chevron South Africa (Pty) Ltd (Chevron) intend to apply for a Waste Management Licence (WML) from the Department of Environmental Affairs (DEA) in accordance with Section 20(b) of the National Environmental Management: Waste Act, 2008 (Act no. 59 of 2008) for existing and proposed temporary waste storage facilities at the Chevron Refinery in Milnerton.

At present, there are three separate sites on the Refinery site used for the temporary storage of general and hazardous waste. Chevron proposes to construct one consolidated waste facility for the temporary storage of waste.

The relevant activities are listed in Category A of the Schedule of Waste Management Activities (GN 718 of July 2009). Category A activities require a Basic Assessment (BA) as per the Environmental Impact Assessment (EIA) Regulations made in terms of NEMA (Act No. 107 of 1998).

ERM Southern Africa (Pty) Ltd is the independent consultant for the WML application. The BA Report is available at the following locations:
- Tableview Library (Birkenhead Road, Tableview)
- Milnerton Library (Plenaar Road, Milnerton)
- Website: www.erm.com/ChevronCapeTownRefinery
- Chevron Refinery, Milnerton

Please note that as a commenting authority a copy of the report has been sent to your offices marked for your attention.

To register as an Interested and Affected Party and/or comment on the BA report please contact Claire Alborough of ERM on (021) 702 9100, (021) 701 7900 (fax); or Claire.Alborough@erm.com, by 23 May 2011.

Please quote the following reference number in all correspondence: DEA Ref. no.: 12/9/11/L287/9

Notice is given of a Public Participation Process and the intention to apply for a WML in terms of Section 20(b) of NEM:WA (Act No. 59 of 2008). The proposed activity triggers Category A Activity 1,2 and 20 of GN R 718.

Regards
Claire Alborough
Consultant

Impact Assessment and Planning (IAP)
ERM Southern Africa
Silverwood House, Block A
Silverwood Close

2011/04/06
Steenberg Office Park
Steenberg, 7945
Cape Town, South Africa

T: +27 (0)21 702 9100
F: +27 (0)21 701 7900
C: +27 (0)72 119 8244
Email: Claire.Alborough@erm.com

www.erm.com

"ERM Environmental Advisor of the Year 2005, 2006 and 2008" Acquisitions Monthly
Claire Alborough

From: Claire Alborough  
Sent: 06 April 2011 02:04 PM  
To: 'pat.titmuss@capetown.gov.za'  
Subject: Notice of Environmental Impact Assessment: Chevron Waste Management Licence Application

DEA Ref. no.: 12/9/11/L287/9  
ERM Ref: 0114053


Dear Pat Titmuss,

Chevron South Africa (Pty) Ltd (Chevron) intend to apply for a Waste Management Licence (WML) from the Department of Environmental Affairs (DEA) in accordance with Section 20(b) of the National Environmental Management: Waste Act, 2008 (Act no. 59 of 2008) for existing and proposed temporary waste storage facilities at the Chevron Refinery in Milnerton.

At present, there are three separate sites on the Refinery site used for the temporary storage of general and hazardous waste. Chevron proposes to construct one consolidated waste facility for the temporary storage of waste.

The relevant activities are listed in Category A of the Schedule of Waste Management Activities (GN 718 of July 2009). Category A activities require a Basic Assessment (BA) as per the Environmental Impact Assessment (EIA) Regulations made in terms of NEMA (Act No. 107 of 1998).

ERM Southern Africa (Pty) Ltd is the independent consultant for the WML application. The BA Report is available at the following locations:

- Tableview Library (Birkenhead Road, Tableview)
- Milnerton Library (Plenaar Road, Milnerton)
- Website: www.erm.com/ChevronCapeTownRefinery
- Chevron Refinery, Milnerton

Please note that as a commenting authority and as requested previously 3 copies of the report have been sent to your offices marked for your attention.

To register as an Interested and Affected Party and/or comment on the BA report please contact Claire Alborough of ERM on (021) 702 9100, (021) 701 7900 (fax); or Claire.Alborough@erm.com, by 23 May 2011.

Please quote the following reference number in all correspondence: DEA Ref. no.: 12/9/11/L287/9

Notice is given of a Public Participation Process and the intention to apply for a WML in terms of Section 20(b) of NEM:WA (Act No. 59 of 2008). The proposed activity triggers Category A Activity 1,2 and 20 of GN R 718.

Regards  
Claire Alborough  
Consultant

Claire Alborough  
Consultant
Impact Assessment and Planning (IAP)
ERM Southern Africa
Silverwood House, Block A
Silverwood Close
Steenberg Office Park
Steenberg, 7945
Cape Town, South Africa

T: +27 (0)21 702 9100
F: +27 (0)21 701 7900
C: +27 (0)72 119 8244
Email: Claire.Alborough@erm.com

www.erm.com

"ERM Environmental Advisor of the Year 2005, 2006 and 2008” Acquisitions Monthly
Claire Alborough

From: Claire Alborough  
Sent: 06 April 2011 02:03 PM  
To: 'KloppersW@dwa.gov.za'  
Subject: Notice of Environmental Impact Assessment: Chevron Waste Management Licence Application

DEA Ref. no.: 12/9/11/L287/9  
ERM Ref: 0114053


Dear Wilna Kloppers,

Chevron South Africa (Pty) Ltd (Chevron) intend to apply for a Waste Management Licence (WML) from the Department of Environmental Affairs (DEA) in accordance with Section 20(b) of the National Environmental Management: Waste Act, 2008 (Act no. 59 of 2008) for existing and proposed temporary waste storage facilities at the Chevron Refinery in Milnerton.

At present, there are three separate sites on the Refinery site used for the temporary storage of general and hazardous waste. Chevron proposes to construct one consolidated waste facility for the temporary storage of waste.

The relevant activities are listed in Category A of the Schedule of Waste Management Activities (GN 718 of July 2009). Category A activities require a Basic Assessment (BA) as per the Environmental Impact Assessment (EIA) Regulations made in terms of NEMA (Act No. 107 of 1998).

ERM Southern Africa (Pty) Ltd is the independent consultant for the WML application. The BA Report is available at the following locations:
- Tableview Library (Birkenhead Road, Tableview)
- Milnerton Library (Plenaar Road, Milnerton)
- Website: www.erm.com/ChevronCapeTownRefinery
- Chevron Refinery, Milnerton

Please note that as a commenting authority a copy of the report has been sent to your offices marked for your attention.

To register as an Interested and Affected Party and/or comment on the BA report please contact Claire Alborough of ERM on (021) 702 9100, (021) 701 7900 (fax); or Claire.Alborough@erm.com, by 23 May 2011.

Please quote the following reference number in all correspondence: DEA Ref. no.: 12/9/11/L287/9

Notice is given of a Public Participation Process and the intention to apply for a WML in terms of Section 20(b) of NEM:WA (Act No. 59 of 2008). The proposed activity triggers Category A Activity 1,2 and 20 of GN R 718.

Regards
Claire Alborough
Consultant

Impact Assessment and Planning (IAP)  
ERM Southern Africa  
Silverwood House, Block A  
Silverwood Close
www.erm.com

"ERM Environmental Advisor of the Year 2005, 2006 and 2008” Acquisitions Monthly
Claire Alborough

From: Claire Alborough
Sent: 06 April 2011 02:31 PM
To: Claire Alborough
Subject: Notice of Environmental Impact Assessment: Waste Management Licence Application
Bcc: 'Busi Bele'; 'Eddie Hannekom'; 'Gavin Visser'; 'Morne Theron'

DEA Ref. no.: 12/9/11/L287/9
ERM Ref: 0114053


Dear Stakeholder,

Chevron South Africa (Pty) Ltd (Chevron) intend to apply for a Waste Management Licence (WML) from the Department of Environmental Affairs (DEA) in accordance with Section 20(b) of the National Environmental Management: Waste Act, 2008 (Act no. 59 of 2008) for existing and proposed temporary waste storage facilities at the Chevron Refinery in Milnerton.

At present, there are three separate sites on the Refinery site used for the temporary storage of general and hazardous waste. Chevron proposes to construct one consolidated waste facility for the temporary storage of waste.

The relevant activities are listed in Category A of the Schedule of Waste Management Activities (GN 718 of July 2009). Category A activities require a Basic Assessment (BA) as per the Environmental Impact Assessment (EIA) Regulations made in terms of NEMA (Act No. 107 of 1998).

ERM Southern Africa (Pty) Ltd is the independent consultant for the WML application. The BA Report is available at the following locations:
- Tableview Library (Birkenhead Road, Tableview)
- Milnerton Library (Pienaar Road, Milnerton)
- Website: www.erm.com/ChevronCapeTownRefinery
- Chevron Refinery, Milnerton

To register as an Interested and Affected Party and/or comment on the BA report please contact Claire Alborough of ERM on (021) 702 9100, (021) 701 7900 (fax); or Claire.Alborough@erm.com, by 23 May 2011.

Please quote the following reference number in all correspondence: DEA Ref. no.: 12/9/11/L287/9

Notice is given of a Public Participation Process and the intention to apply for a WML in terms of Section 20(b) of NEM:WA (Act No. 59 of 2008). The proposed activity triggers Category A Activity 1,2 and 20 of GN R 718.

Regards
Claire Alborough
Consultant

Impact Assessment and Planning (IAP)
ERM Southern Africa
Silverwood House, Block A
Silverwood Close
Steenberg Office Park
Steenberg, 7945
Cape Town, South Africa

T: +27 (0)21 702 9100
F: +27 (0)21 701 7900
C: +27 (0)72 119 8244
Email: Claire.Alborough@erm.com

www.erm.com

"ERM Environmental Advisor of the Year 2005, 2006 and 2008" Acquisitions Monthly
Claire Alborough

From: Claire Alborough
Sent: 06 April 2011 02:37 PM

Subject: Notice of Environmental Impact Assessment: Chevron Waste Management Licence Application

DEA Ref. no.: 12/9/11/L287/9
ERM Ref: 0114053


Dear Stakeholder,

Chevron South Africa (Pty) Ltd (Chevron) intend to apply for a Waste Management Licence (WML) from the Department of Environmental Affairs (DEA) in accordance with Section 20(b) of the National Environmental Management: Waste Act, 2008 (Act no. 59 of 2008) for existing and proposed temporary waste storage facilities at the Chevron Refinery in Milnerton.

At present, there are three separate sites on the Refinery site used for the temporary storage of general and hazardous waste. Chevron proposes to construct one consolidated waste facility for the temporary storage of waste.

The relevant activities are listed in Category A of the Schedule of Waste Management Activities (GN 718 of July 2009). Category A activities require a Basic Assessment (BA) as per the Environmental Impact Assessment (EIA) Regulations made in terms of NEMA (Act No. 107 of 1998).

ERM Southern Africa (Pty) Ltd is the independent consultant for the WML application. The BA Report is available at the following locations:

- Tableview Library (Birkenhead Road, Tableview)
- Milnerton Library (Pienaar Road, Milnerton)
- Website: www.erm.com/ChevronCapeTownRefinery
- Chevron Refinery, Milnerton

To register as an Interested and Affected Party and/or comment on the BA report please contact Claire Alborough of ERM on (021) 702 9100, (021) 701 7900 (fax); or Claire.Alborough@erm.com, by 23 May 2011.

Please quote the following reference number in all correspondence: DEA Ref. no.: 12/9/11/L287/9

Notice is given of a Public Participation Process and the intention to apply for a WML in terms of Section 20(b) of NEM:WA (Act No. 59 of 2008). The proposed activity triggers Category A Activity 1,2 and 20 of GN R 718.

Regards
Claire Alborough
Consultant

Impact Assessment and Planning (IAP)
ERM Southern Africa
Silverwood House, Block A
Silverwood Close
Steenberg Office Park
Steenberg, 7945
Cape Town, South Africa

T: +27 (0)21 702 9100
F: +27 (0)21 701 7900
C: +27 (0)72 119 8244
Email: Claire.Alborough@erm.com

www.erm.com

"ERM Environmental Advisor of the Year 2005, 2006 and 2008” Acquisitions Monthly
Claire Alborough

From: Claire Alborough
Sent: 06 April 2011 02:28 PM
To: ‘Bernadette le Roux’; ‘Elizabeth Berry’; ‘Heather Brenner’; ‘Hlumile Stemela’; ‘Ian Neilson’; ‘Peter Deacon’

Subject: Notice of Environmental Impact Assessment: Waste Management Licence Application

DEA Ref. no.: 12/9/11/L287/9
ERM Ref: 0114053


Dear Stakeholder,

Chevron South Africa (Pty) Ltd (Chevron) intend to apply for a Waste Management Licence (WML) from the Department of Environmental Affairs (DEA) in accordance with Section 20(b) of the National Environmental Management: Waste Act, 2008 (Act no. 59 of 2008) for existing and proposed temporary waste storage facilities at the Chevron Refinery in Milnerton.

At present, there are three separate sites on the Refinery site used for the temporary storage of general and hazardous waste. Chevron proposes to construct one consolidated waste facility for the temporary storage of waste.

The relevant activities are listed in Category A of the Schedule of Waste Management Activities (GN 718 of July 2009). Category A activities require a Basic Assessment (BA) as per the Environmental Impact Assessment (EIA) Regulations made in terms of NEMA (Act No. 107 of 1998).

ERM Southern Africa (Pty) Ltd is the independent consultant for the WML application. The BA Report is available at the following locations:

- Tableview Library (Birkenhead Road, Tableview)
- Milnerton Library (Plenaar Road, Milnerton)
- Website: [www.erm.com/ChevronCapeTownRefinery](http://www.erm.com/ChevronCapeTownRefinery)
- Chevron Refinery, Milnerton

To register as an Interested and Affected Party and/or comment on the BA report please contact Claire Alborough of ERM on (021) 702 9100, (021) 701 7900 (fax); or Claire.Alborough@erm.com, by 23 May 2011.

Please quote the following reference number in all correspondence: DEA Ref. no.: 12/9/11/L287/9

Notice is given of a Public Participation Process and the intention to apply for a WML in terms of Section 20(b) of NEM:WA (Act No. 59 of 2008). The proposed activity triggers Category A Activity 1,2 and 20 of GN R 718.

Regards
Claire Alborough
Consultant

Impact Assessment and Planning (IAP)
ERM Southern Africa
Silverwood House, Block A
Silverwood Close
Steenberg Office Park
Steenberg, 7945
Cape Town, South Africa

2011/04/06
www.erm.com

"ERM Environmental Advisor of the Year 2005, 2006 and 2008” Acquisitions Monthly
Claire Alborough

From: Claire Alborough
Sent: 06 April 2011 02:39 PM
To: Claire Alborough
Subject: Notice of Environmental Impact Assessment: Chevron Waste Management Licence Application
Bcc: 'Alice Jordan'; 'David Sindle'; 'Debbie Newman'; 'Francis van der Byl'; 'Kevin Thorpe'; 'Lynn Marais'; 'Martin Burr'; 'Michael Prag'; 'Mike Longden-Thurgood'; 'Neil van Wyk'; 'Pheliswa Mayekiso '

DEA Ref. no.: 12/9/11/L287/9
ERM Ref: 0114053


Dear Stakeholder,

Chevron South Africa (Pty) Ltd (Chevron) intend to apply for a Waste Management Licence (WML) from the Department of Environmental Affairs (DEA) in accordance with Section 20(b) of the National Environmental Management: Waste Act, 2008 (Act no. 59 of 2008) for existing and proposed temporary waste storage facilities at the Chevron Refinery in Milnerton.

At present, there are three separate sites on the Refinery site used for the temporary storage of general and hazardous waste. Chevron proposes to construct one consolidated waste facility for the temporary storage of waste.

The relevant activities are listed in Category A of the Schedule of Waste Management Activities (GN 718 of July 2009). Category A activities require a Basic Assessment (BA) as per the Environmental Impact Assessment (EIA) Regulations made in terms of NEMA (Act No. 107 of 1998).

ERM Southern Africa (Pty) Ltd is the independent consultant for the WML application. The BA Report is available at the following locations:
- Tableview Library (Birkenhead Road, Tableview)
- Milnerton Library (Pienaar Road, Milnerton)
- Website: www.erm.com/ChevronCapeTownRefinery
- Chevron Refinery, Milnerton

To register as an Interested and Affected Party and/or comment on the BA report please contact Claire Alborough of ERM on (021) 702 9100, (021) 701 7900 (fax); or Claire.Alborough@erm.com, by 23 May 2011.

Please quote the following reference number in all correspondence: DEA Ref. no.: 12/9/11/L287/9

Notice is given of a Public Participation Process and the intention to apply for a WML in terms of Section 20(b) of NEM:WA (Act No. 59 of 2008). The proposed activity triggers Category A Activity 1,2 and 20 of GN R 718.

Regards
Claire Alborough
Consultant

Impact Assessment and Planning (IAP)
ERM Southern Africa
Silverwood House, Block A
Silverwood Close

2011/04/06
Comments Received
10 May 2011

Claire Alborough
ERM Southern Africa

DEA Ref No: 12/9/11/L287/9b

The Draft BAR sent to us under cover of your email on 6 April 2011 has been studied and we are of the opinion that adequate measures are proposed to prevent environmental degradation.

The proposed preferred alternative for siting the facility would be our choice as well; and we are in agreement with the conditions and recommendations as set out in Section 8 of the Draft BAR.

We have no additional comments and must commend you on a thorough and detailed report.

Kind regards

[Signature]

Friends of Rietvlei
RE: REQUEST FOR COMMENTS ON BASIC ASSESSMENT REPORT (BAR) FOR A WASTE MANAGEMENT LICENCE (WML) APPLICATION AT THE CHEVRON REFINERY IN MILNERTON

1. PURPOSE


2. RECOMMENDATIONS

The Sub Directorate: Waste Management Licensing has the following comments with reference to the proposed activity.

2.1 The Department recommends that Chevron must align whatever infrastructure developments or upgrades on the site with this proposed consolidated waste storage facility as this will eliminate the need for the Interim waste facilities and also, reduce potential negative impact on the receiving environment.

2.2 The report does not present a detailed decommissioning process and assessment in terms of the prevention of contamination of the environment during the decommissioning of the existing hazardous waste facilities.

2.3 It is recommended that all hazardous waste disposal sites and sumps be lined, with an appropriate liner system to prevent any contamination of soil and groundwater.
2.4 The proposed external audit periods for the interim hazardous waste storage areas and consolidated hazardous waste storage area should be revised. DEADP requests that the audits be conducted annually and not every 2 or 3 years.

2.5 Ensure that recommendations for the hazardous waste storage areas and facilities are implemented as proposed in the EMP and Chevron Management of waste procedures (CDMS 179) report and that audit reports are timeously submitted to the appropriate authorities.

2.6 The report does not clearly indicate if reuse, recycling and recovery in terms of separation and sorting of waste will take place on site of some waste materials. If this does occur it may trigger more waste listed activities, please clarify.

2.7 It is important that certificates for safe disposal and receipts of the facility where the waste is taken are requested from service providers and kept on file for audit purposes.

2.8 Record must be kept of the amount of waste that leave the premise as the quantities of waste needs to be captured on the Departmental Integrated Pollutant Waste Information System (IPWIS) on the following website - http://ipwis.wcacs.gov.za.

2.9 It is recommended that the Chevron Management of Waste Procedures (CDMS 179) is updated in terms of handling hazardous waste in accordance with the NEM: WA and not the Environmental Conservation Act (No. 73 of 1989).

Please contact Shaun Arendse on 021 483 2901 or email sharendse@pwc.gov.za should you have any queries regarding these comments.

Yours faithfully

[Signature]

EP HANEKOM
DEPUTY DIRECTOR: WASTE MANAGEMENT LICENSING
DATE: 25/11/2011
23 May 2011

ERM Southern Africa
Private Bag X12
TOKAI
7966

Attention: Ms Claire Alborough

Dear Madam

DRAFT BASIC ASSESSMENT REPORT FOR A WASTE MANAGEMENT LICENCE APPLICATION AT THE
CHEVRON REFINERY, ERF 936, MILNERTON
(DEA REFERENCE: E12/9/11/L287/9)

The abovementioned document, dated April 2011, that was received by this office on 11 April 2011 refers.

Below please find the consolidated comment of the City of Cape Town on the Draft Basic Assessment Report (BAR) for the above mentioned licence application:

1. City of Cape Town: Transport, Roads and Stormwater Department (Johan Massyn – Tel: 021 550 1046)
   This Department has indicated that they have no comment on the licence application.

2. City of Cape Town: Water and Sanitation Department (Jerome Brophy – Tel: 021 550 1078)
   The Department has indicated that they have no objection to the licence application.

3. City of Cape Town: Solid Waste Management Department
   Solid Waste Disposal Branch (Annette Naude – Tel: 021 487 2368)
   The following comment was provided by the Solid Waste Disposal Branch on the Draft BAR:

3.1 Section B: 7a Solid Waste Management (Pg. 6 of Draft BAR):
   Q: How will the construction solid waste be disposed of?
   A: Solid waste will be disposed of by an authorised waste contractor
   Comments on the above (bolded words):
   • Construction solid waste is defined in Section 4 of Appendix G in CDMS 179 as non-hazardous, general waste.
   • Authorisation should include a registration with the City of Cape Town Solid Waste Planning Department (Alfonso van Vuuren, Tel: 021 400 3381)

3.2 Section B: 7a Solid Waste Management (Pg 6 of Draft BAR):
   Q: Where will the construction solid waste be disposed of?
   A: Solid waste will be managed as per CDMS 179 (Appendix G).
   Comments on the above:
   • Why is there no comment on crushing, re-use or reduction of builder’s rubble? Crushing is referred to in Section E of the Draft BAR.
   • There appears to be a contradiction in the definition of builder’s rubble. Builders rubble is defined to be non-hazardous waste in Section 4 of Appendix G (CDMS 179), thus uncontaminated rubble. Whereas builders rubble is referred to as possibly contaminated building material as well as clean
rubble in Section E-3 of the Draft BAR. There is a differentiation in disposal method by mentioning possible crushing.

3.3 Section B: 7b Liquid Effluent (Pg. 7 of Draft BAR):
- The contact person at the Vissershok Waste Treatment Facility is no longer Craig Mitchell as indicated in the Draft BAR. The new contact person and details must be sought and corrected in the Draft BAR.

3.4 Section B 14: Legislation (Pg. 11 of Draft BAR):
- Include the Consumer Protection Act, Act 68 of 2008 for the return of Compact Fluorescent tubes (CFL), etc.

3.5 Section C 3: Groundwater, soil and geological stability of the site (Pg. 12 of Draft BAR):
- All three site alternatives have a shallow water table of <1.5m. The design specifications must allow for impermeable floors as well as mitigation if leaks occur in the floors.
- S3 is unacceptable in terms of the Swartland Renosterveld wetland.

3.6 Section E 3: Impacts that may result from the construction phase (Pg. 22 of Draft BAR):
- Indirect Impacts: Builders rubble is described to possibly contain contaminated material that will have an impact on landfill airspace. This description deviates from the definition of “non-hazardous waste” in Appendix G section 4.

3.7 Section E 8: Recommendation of Practitioner (Pg. 30 of Draft BAR):
- Ensure that there is no contaminated rubble on open areas.

3.8 Appendix G: CDMS 179_Section 5.1 and 5.2:
- Section 5.1 and 5.2: There is a contradiction and duplication of activity 20. The flow diagram for probably hazardous waste (B) ends in activity 20 (Input waste volumes into Essential Suite and file WM document). The flow diagram for non-hazardous waste (A) starts with activity 20 (guideline for managing refuse container).
- Section 5.1: The flow diagram for probably hazardous waste (B) did not address activity 12.
- Section 5.2: The flow diagram for non-hazardous waste (A) moves from activity 20 to activity 33. In activity 26, disposal of hazardous waste. There must be a misprint or error of disposing hazardous waste in a non-hazardous waste flow chart?
- Section 5.4: Include ‘licences’ in the statement “…to ensure compliance to permits and regulations”.
- Section 5.5: Hazardous substances may need to be reclassified in terms of SANS 10234 in terms of the Global Harmonised System. A possible NEM:WA requirement.

4. City of Cape Town: City Health: Environmental Health Branch (Leon Cillie– Tel: 021 650 7521)
This branch has indicated that they have no objection to the application subject to the following:
4.1 The yard must be rodent proofed in accordance with the Government Rodent proofing regulations.
4.2 Part 3 of the City of Cape Town Environmental Health By-law deals with medical waste management and requires all generators and transporters of medical waste to register with the City of Cape Town Health Department.
4.3 All scrap metal must be stored in such a manner so as to prevent rainwater from accumulating therein in order to prevent mosquitoes from breeding.

All other direct impacts such as waste generation, noise generation, dust generation, health and safety and soil and water contamination have been suitably addressed in the Draft BAR.

5. City of Cape Town: Environmental Resource Management Department
Environment and Heritage Management Branch (Katy Spalding – Tel: 021 550 1059)
5.1 The Erf number for the proposed activity must be clearly indicated on the cover page, front page and in the description of the activity in Section B1 of the BAR.
5.2 This Department supports the preferred alternative S1 for the proposed consolidated waste storage facility as well as the recommendations provided by the Environmental Assessment Practitioner.
5.3 The seasonal Swartland (shale) Renosterveld wetland area identified on the eastern portion of the site for Alternative S3 must be delineated and protected from any future disturbances or development on the site. A specialist report delineating the wetland and proposing rehabilitation measures should be provided with the Final BAR and the proposed rehabilitation measures included in the EMP. The owner of Chevron must acknowledge the wetland and implement recommended rehabilitation measures to support the wetland habitat and ecosystem.
5.4 The owner is bound to comply with and enforce compliance by contractors with provisions of the EMP during all phases of the development. The owner shall ensure that the EMP forms part of the contractor's documentation.

5.5 The owner shall appoint, at his/her cost, an independent Environmental Control Officer ("ECO"), with appropriate environmental qualifications, to oversee compliance with the EMP during the construction phase of the Consolidated Waste Treatment Facility as well as the follow up audits during the operational phase. The ECO shall liaise with Council's environmental officers and submit audit reports on a regular basis. Such an appointment is to be submitted to the City of Cape Town Regional Manager: Environmental Resource Management for record keeping purposes.

5.6 The owner shall make good any damage to the environment caused as a result of non-compliance with the CEMP.

5.7 The owner is to submit notification of start of work on site and thereafter regular compliance checklists to the City of Cape Town Regional Manager: Environmental and Heritage Resource Management Department;

**Conclusion**

In conclusion the City of Cape Town has no objection in principle to waste management licence application; however all of the comments, conditions and concerns raised in this letter must be addressed in the Final Basic Assessment Report and submitted to this office in the form of 1 hard copy and 1 electronic CD version.

Yours faithfully

[Signature]

Pat Titmuss  
**REGIONAL MANAGER: ENVIRONMENTAL & HERITAGE MANAGEMENT**
TRANSMISSION VERIFICATION REPORT

TIME: 23/05/2011 14:53
NAME: OCTERMID
FAX: +27-21-5501003
TEL: +27-21-5501007
SER. #: 00007/3522588

DATE/TIME: 23/05/2014:52
FAX NO./NAME: 0217917900
DURATION: 00:01:28
PAGE(S): 04
RESULT: OK
MODE: STANDARD

FACSIMILE TRANSMISSION SHEET
FAKSIMILEE VERSENDINGSBlad

DRUKLETTERS ASSEBELIEF! PLEASE PRINT

OFFICIAL ✓ PRIVATE □ PLEASE TICK APPROPRIATE BOX.

DATE/DATUM: 23 May 2011
OUR REFERENCE/ONS VERWYSING:
MESSAGE NUMBER/BERIGNUMMER:
TO/AAN:
FAX NUMBER/FAKSNUMMER: 021 701 7900

FROM/VAN: Katy Spalding
Fax No/Faks NR: 021 550 1003

e-mail: katy.spalding@capetown.gov.za

ADMINISTRATION/ADMINISTRASIE: BLAAUWBERG
Tel: 021 550 1059

Dear Claire

Kindly refer to the attached comment from the City of Cape Town on the Draft BAR for the Chevron Waste Management Licence Application.

Regards

Katy

TRANSMITTED BY/VERSEND DEUR: Katy Spalding (021) 550 1059

ATTENTION! AANDAG

IF YOU HAVE NOT RECEIVED ALL THE PAGES, PLEASE PHONE 550 1087
### FACSIMILE TRANSMISSION SHEET

**DRUKLETTERS ASSEBLIEF! PLEASE PRINT**

<table>
<thead>
<tr>
<th>OFFICIAL ✓</th>
<th>PRIVATE</th>
<th>□ PLEAS TICK APPROPRIATE BLOCK</th>
</tr>
</thead>
</table>

**DATE/DATUM:** 23 May 2011

**OUR REFERENCE/ONS VERWYSING:**

**MESSAGE NUMBER/BERIGNOMMER:**

**TO/AAN:**

**FAX NUMBER/FAKSNOMMER:** 021 701 7900

**FROM/VAN:** Katy Spalding

**FAX NO/FAKS NR:** 021 550 1003

**e-mail:** katy.spalding@capetown.gov.za

**ADMINISTRATION/ADMINISTRASIE:** BLAAUWBERG

**Tel:** 021 550 1059

---

Dear Claire,

Kindly refer to the attached comment from the City of Cape Town on the Draft BAR for the Chevron Waste Management Licence Application.

Regards,

Katy

---

**TRANSMITTED BY/VERSEND DEUR:** Katy Spalding (021) 550 1059

---

**ATTENTION / AANDAG**

*IF YOU HAVE NOT RECEIVED ALL THE PAGES, PLEASE PHONE 550 1087*

*INDIEN U NIE AL DIE BLADSJE ONTVANG HET NIE, SKAKEL ASSEBLIEF 550 1087*

---

**CONFIDENTIAL NOTE**

THE INFORMATION CONTAINED IN THIS FACSIMILE MESSAGE IS LEGALLY PRIVILEGED AND CONFIDENTIAL INFORMATION INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY NAMED ABOVE. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION OR COPY OF THIS TELECOPY IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS TELECOPY IN ERROR PLEASE IMMEDIATELY NOTIFY US BY TELEPHONE AND RETURN THE ORIGINAL MESSAGE TO US AT THE ADDRESS ABOVE VIA THE SOUTH AFRICAN POSTAL SERVICE. THANK YOU.
23 May 2011

ERM Southern Africa
Private Bag X12
TOKAI
7966

Attention: Ms Claire Alborough

Dear Madam,

DRAFT BASIC ASSESSMENT REPORT FOR A WASTE MANAGEMENT LICENCE APPLICATION AT THE CHEVRON REFINERY, ERF 936, MILNERTON
(DEA REFERENCE: E129/11/L2879)

The abovementioned document, dated April 2011, that was received by this office on 11 April 2011 refers.

Below please find the consolidated comment of the City of Cape Town on the Draft Basic Assessment Report (BAR) for the above mentioned licence application:

1. City of Cape Town: Transport, Roads and Stormwater Department (Johan Massyn – Tel: 021 550 1045)
   This Department has indicated that they have no comment on the licence application.

2. City of Cape Town: Water and Sanitation Department (Jerome Brophy – Tel: 021 550 1078)
   The Department has indicated that they have no objection to the licence application.

3. City of Cape Town: Solid Waste Management Department
   Solid Waste Disposal Branch (Annette Neude – Tel: 021 487 2368)
   The following comment was provided by the Solid Waste Disposal Branch on the Draft BAR:

2.4.2. Comments on Pr 2 and Pr 3: Solid Waste Management (Ref: 2.4.2. Pr 2)

Dear Clair
Thank you for your quick response.
I have read the Draft Basic Assessment Report and wish to make the following comment:

- "the licence holder must appoint an independent external auditor" - would it not serve the interests of the affected parties better if the Affected Parties nominate an independent external auditor?
- "an audit report for submission to the authorities" - we would like this report to be made public; maybe an annual public meeting where the findings are released would afford the general public an opportunity to be informed of all the good changes being made at Chevron.

Thanks
Kind regards
Mike

----- Original Message ----- 
From: Claire Alborough
To: Mike Channing
Sent: Tuesday, April 12, 2011 9:12 AM
Subject: RE: Interested and Affected Party

Dear Michael

Thank you for the response. I have registered you as an interested and affected party and as such you are entitled to receive all communication and documentation regarding this project and comment on the draft Basic Assessment Report (BAR). Please let me know if you have any comments or queries on this project or the report distributed.

Kind regards
Claire

Claire Alborough
Consultant

Impact Assessment and Planning (IAP)
ERG Southern Africa
Silverwood House, Block A
Silverwood Close
Steenberg Office Park
Steenberg, 7945
Cape Town, South Africa

T: +27 (0)21 702 9100
F: +27 (0)21 701 7900
From: Mike Channing [mailto:Mike@wcfchurch.co.za]  
Sent: 12 April 2011 08:25 AM  
To: Claire Alborough  
Subject: Interested and Affected Party  

Dear Clair

DEA Ref. no.: 12/9/11/L287/9
I wish to register as an interested and affected party in the process of Chevron Refinery applying for a waste management licence. I am part of the Exco of the Table View Ratepayers' Association and would be representing their interests.

Regards
Michael Channing  
25 North Road, Table View, 7441  
082-8241296
Appendix G

Chevron Management of Waste Procedure (CDMS 179)
# TABLE OF CONTENTS

1. PURPOSE ....................................................................................................................... 1
2. SCOPE .......................................................................................................................... 1
3. OVERVIEW .................................................................................................................... 1
   3.1 HAZARDOUS WASTE ............................................................................................. 2
   3.2 NON-HAZARDOUS WASTE .................................................................................. 4
4. DEFINITIONS .................................................................................................................. 1
5. REQUIREMENTS AND RESPONSIBILITIES ................................................................. 5
   5.1 HAZARDOUS WASTE .......................................................................................... 6
   5.2 NON-HAZARDOUS WASTE ................................................................................. 8
   5.3 MEDICAL WASTE ................................................................................................... 9
   5.4 EXTERNAL WASTE FACILITY AUDITS ................................................................. 11
   5.5 HAZARD RATING .................................................................................................. 11

APPENDIX 1: Types of hazardous waste and associated laboratory tests .................................. 13
APPENDIX 2: SABS CODE 0228 CLASSES ........................................................................ 16
1. PURPOSE

The purpose of this process is to facilitate the disposal of hazardous and non-hazardous waste in an environmentally responsible manner. The management of waste includes:

(a) Collection, temporary storage, transport, and disposal of waste,
(b) Tracking, monitoring and regulation of the production, collection, transport, and disposal of waste, and
(c) Prevention of waste production through in-process modifications, re-use and recycling.

2. SCOPE

This procedure applies to the sampling, testing, recycling, and disposal of hazardous and non-hazardous waste. This includes the management and disposal of wastes contained in drums and bulk containers from the refinery.

3. OVERVIEW

3.1 HAZARDOUS WASTE

The Environmental Specialist keep necessary records associated with each disposal and documents the disposal of all hazardous and non-hazardous waste generated at the Refinery. The Reliability and Maintenance (R&M) Site Services section coordinates the removal of waste by an accredited removal specialist.

These wastes include:

- Asbestos insulation
- Asphalt/bitumen
- Contaminated soil
- Separator sludge
- Tanks bottom sludge(leaded and leaded)
- Redundant chemicals
- Laboratory chemicals
- Laboratory contaminated glass sample bottles
- Spent caustic
- Spent amine
- Spent catalysts
- Vanadium contaminated waste such as Furnace deposits, refractory, boiler sludge etc
- Plant 72 clay filter
- Charcoal
- Contaminated blast grit
- Contaminated salt from salt filters
- Contaminated stone from salt filters

The generator of waste should eliminate unnecessary waste generation. Effort must be directed at reducing waste at source (in terms of volume and toxicity) and recycling. The hierarchy of the waste management system is: reduce; reuse/recycle; treatment and final disposal. Currently the Refinery’s waste is either
• re-used/recycled in the refining process or off-site
• disposed of, under various controlled conditions for dilution with effluent (e.g. waste water at the effluent treatment plant), or
• disposed of by an accredited waste management contractor

Handling of hazardous waste shall only take place under a suitable authorization permit system.

The Waste Generator will arrange for sampling and laboratory testing of the material in the laboratory according to the schedule in Appendix 1.

Effort must first be directed at reducing, re-using or recycling the waste on-site, then off-site. Disposal to a landfill site should be considered as a last option. The current initiative is integrated waste management where Chevron and Enviroserv look at ways of re-using/re-cycling larger waste streams from the refinery so that the amount of hazardous waste going to landfill is reduced and eventually eliminated. By going for the integrated waste management option, Chevron is ensuring that it minimize future liabilities.

**Waste in drums**

As indicated above, the Waste Generator should have the waste sampled and sent to the lab for analyses. In order to reduce safety hazards on the Plant, the Waste Generator shall request R&M Site Services section to transfer waste in drums to the designated waste storage site (HW Transfer Station) on the Refinery. All drums containing hazardous waste on this site must be labeled by the generator, using Chevron’s Standard Essential Suite Tool, to print the required drum label.

**Waste storage holding site – HW Transfer Station**

An area shall be designated for the temporary storage of waste material and drums containing waste products. The waste shall be stored in such a manner that no leakage can occur at any time. The area shall be fenced off and signposted with “hazardous waste” signs. Unauthorized entry is prohibited in the area. Hazardous waste generated at the Refinery should be disposed of within 90 days.

**Empty drum storage site – Salvage Yard**

30 to 40 empty drums are stored in the salvage yard in case of plant emergencies. No empty drums will be discarded as scrap metal, but will instead be sent to a Ekapa drum refurbishers and reconditioners of drums.

For waste disposal by a contractor, the lab results will be forwarded to the Waste contractor before removal is arranged from the Refinery. Hazardous waste disposal is only allowed on a permitted Hazardous waste landfill site. Hazardous waste must be disposed of in accordance with the Environmental Conservation Act No. 73 of 1989.

The waste contractor shall be escorted to the designated area or Plant area by Operations personnel after hours. The waste removal is supervised by R&M Site Services section, and monitored by the Plant Operator - under permit control.

Waste contractors are obliged to certify in writing via a Waste Manifest Document that the waste was disposed of in an environmentally responsible manner. Since Chevron is the generator of the waste, the waste manifest document must also be signed by a Chevron person.

Complete records shall be kept of each container or batch of waste to ensure all wastes can be traced from cradle-to-grave.

**Recycling alternatives**
Diesel Hydrotreated catalyst is recycled (Metal reclamation) at Hong Jing in Taiwan and forms part of a global Chevron contract. This facility has appears on the Global Chevron fit to use (FTU) list i.e. it has already been audited using the Third-Party Waste Stewardship process.

### 3.2 NON-HAZARDOUS WASTE

Non-hazardous waste is categorized as general waste.

Refinery staff and contractors deposit this waste in wheelie bins or labeled 210L open-top metal drums placed at designated sites around the Refinery. These containers are collected by a Refinery waste collection team on a daily basis and the waste material is placed in skips at the salvage yard, from where these and the Otto bins on site are sorted for recycling purposes and then removed by a waste contractor at least once a week.

Refer to RELIAB\GUIDE\000218 for the guideline on refuse collection.

### 4. DEFINITIONS

**Hazardous Waste**
Waste which has the potential, even in low concentrations, to have a significant adverse effect on public health and/or the environment. This would be on account of its inherent chemical and physical characteristics, such as toxic, ignitable, corrosive, explosive, reactive, carcinogenic or other properties.

**Non-hazardous Waste**
Waste that does not pose an immediate threat to man or the environment. This includes builder’s rubble, garden rubble, domestic (cafeteria), waste paper and general dry waste. Non-hazardous waste is categorized as general waste.

**Medical Waste**
Any waste generated in the Refinery Clinic (e.g. syringes, cotton swabs, plasters, etc).

**Generator**
The originating party whose activities result in the production of waste.

**SABS Code 0228**
SABS Code 0228 “Identification and Classification of Dangerous Substances and Goods” describes an inclusive hazardous waste list. The presence of a substance on the list automatically brings any material containing that substance into regulatory control.

**“Minimum requirements for the handling and disposal of hazardous waste - Vol. 1”**
A document issued by the Department of Water Affairs and Forestry, indicating the policy and principles underpinning the safe handling, classifying and disposal of hazardous waste in South Africa.

### 5. REQUIREMENTS AND RESPONSIBILITIES

The flowcharts which follow provide a detailed breakdown of the activities required. Additional details are provided at the end of the flowchart for elements marked *.
Below is an overview of the Essential Suite workflow which supports this procedure.
5.1 Hazardous waste

1. Waste is generated (hazardous or non-hazardous) and needs to be disposed of.

2*. Works request submitted by Operations for Waste removal

3*. Generate a container in Essential Suite

4. Generate label(s) for waste contained in drums

5*. Is the waste hazardous or non-hazardous?

A. Non-hazardous

B. Medical

7. Sampling procedure QUALITY\PROCED000047

6. Draw sample of the waste and take to Laboratory to for analysis

8. Test results

9. Operations Supervisor(s) / Operator(s)

9. Receive sample certificate from lab to confirm whether waste is classified as hazardous or not

Continued on next page
Continued from previous page

Waste Transporter

10* Remove waste from area of generation once all the required documentation is in place and signed

1* Is waste in drums or in bulk containers?

Drum

Waste Transporter

13 Transport waste to temporary hazardous waste storage area

Bulk

Waste Transporter Representative

14 Generate waste shipment information in Essential Suite and add the container(s) already generated to the shipment to be shipped off site

Security

15 Waste transporter is issued with an exit weighbridge ticket

16 Weighbridge ticket printed to be sent to Environmental Specialist

Waste Transporter

17 Transport bulk container(s) offsite

Accredited Third Party Waste Management facility

18 Dispose of hazardous waste

Environmental Specialist

19 Waste Manifest Document and Waste facility weighbridge ticket

20 Input waste volumes into Essential Suite and file Waste Manifest Document
5.2 Non-hazardous waste

A (from Section 5.1)

20 Guideline for managing refuse containers RELIAFG/230/0002118

21 Waste Collection Team
Take waste drums and/or whole bins to salvage yard and desert contents into appropriate waste or recycling skips

22 Waste Contractor Representative
Generate waste shipment information in Essentia Safe and add the container(s) already generated to the shipment

23 Security
Waste transporter is sealed with an exit weighbridge ticket

24 Weighbridge ticket printed to be sent to Environmental Specialist

25 Waste Collection Team
Can drums be reused? (Waste collection team decides)

26 Waste Contractor Representative
Remove waste skips from site

27 Accredited Third Party Waste Management Facility
Dispose of hazardous waste

28 Environmental Specialist
Input waste volumes into Essentia Safe and file Waste Manifest Document

29 Waste Collection Team
Dispose of scrap drums at salvage yard

30 Waste Collection Team
Collect replacement drums from Site Services store

31 Are additional drums required at any site? (Waste collection team and Maintenance Coordinator decides)

32 Yes

33 Waste Collection Team
Return empty waste drums and any additional ones to designated sites

34 Yes

35 No

36 No
5.3 Medical waste

B (from Section 5.1)

Occupational Health Nurse

34 Contact the Medical Waste Management company to collect medical waste on a monthly basis or as needed

Occupational Health Nurse

35 Generate waste shipment express in Essential Suite

Medical Waste management Contractor

36 Collect medical waste from the Refinery clinic monthly

Occupational Health Nurse

38 Retain a copy of the disposal certificate and forward a copy to the Environmental Specialist

Environmental Specialist

39 Input waste volumes into Essential Suite and file Waste Manifest Document

37* Certificate of removal and disposal
Additional information in support of the flowchart:

<table>
<thead>
<tr>
<th>Reference No. in the flowchart</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 5</td>
<td>Should there be any doubt by the Supervisor as to whether the waste is hazardous or not, the Supervisor should always err on the safe side and treat the waste as <em>probably hazardous</em> – HES Subject Matter Experts can be approached for guidance. As a guideline, refer to <strong>Appendix 1</strong>.</td>
</tr>
<tr>
<td>2</td>
<td>No waste will be removed from site without the submission of a works request. Works request is allocated to site services, who schedule the work accordingly.</td>
</tr>
<tr>
<td>3</td>
<td>The waste generator defines the area where the waste is generated, i.e. operations (primarily hazardous waste) or clinic (medical waste)</td>
</tr>
<tr>
<td>10</td>
<td>Waste is only removed if the waste manifest document has been signed by the waste generator (i.e. operations representative), the lab certificate has been received and the drums (if applicable) are correctly labeled. In addition, the container number which is generated in Essential Suite must be noted under the ‘special instructions’ field on the waste manifest document. OPS Supervisor is to ensure that the contractor complies with requirements of any work permits that exist for the waste disposal work.</td>
</tr>
<tr>
<td>18, 27</td>
<td>Waste manifest to be kept for 50 years.</td>
</tr>
<tr>
<td>29</td>
<td>Before undertaking the rehabilitation of drums, it is important to consider any contamination from the drum’s previous contents that might adversely affect the health of those doing the rehabilitation.</td>
</tr>
<tr>
<td>37</td>
<td>Certificate provided to confirm that medical waste was removed from site and disposed of via high temperature incineration and then the residual ash disposed of at a Hazardous Waste Landfill Site in accordance with the regulations as per the Department of Water Affairs.</td>
</tr>
</tbody>
</table>

In deciding on a waste handling method, the following factors should be considered:
- the opportunity for reduction or recycling at source
- cost of transportation and disposal/ recycling
- potential for injury to persons
- potential to contaminate soil or groundwater
- long-term risks and potential future costs.

Specify the designated area for the handling of the waste, to limit/control the exposure to personnel to acceptable levels.

The waste disposal procedures to be used may be found in CDMS or in the Health Environmental and Safety (HES) files. Examples are:
- Lead monitoring and control - **HEALTHPROCED000422**
- Handling asbestos insulation - **HEALTHGUIDE000202**
- Shutdown environmental guidelines - **ENVGUIDE001219** covering waste such as spent caustic, boiler firebox washings, vanadium waste, etc.
5.4 External Waste Facility audits

The Environmental Specialist, and/or appointed qualified person will conduct a 4 yearly external audit at the waste disposal site(s) to ensure compliance to permits and regulations. The standardized Chevron Third-Party Waste Stewardship (TWS) evaluation is used to determine whether an external waste facility is fit to use (FTU).

Refer to ENV\FORM\002777 as the standardised guideline for the site evaluation.

5.5 Hazard Rating

The objectives of Hazard Rating are to indicate:

- the risk posed by a Hazardous Waste and hence the degree of care required for its disposal;
- the class of Hazardous Waste landfill at which the waste may be disposed;
- the amount of a hazardous substance or compound that can be disposed of at a particular Hazardous Waste landfill site before it begins to pose a risk.

The Hazard Rating is used to classify Hazardous Waste into four Hazard Ratings.

Hazard Rating 1: **Extreme Hazard**
Hazard Rating 2: **High Hazard**
Hazard Rating 3: **Moderate Hazard**
Hazard Rating 4: **Low Hazard**

The four Hazard Ratings are ranked according to a logarithmic progression, whereby Extreme Hazard is 10 times more toxic than High Hazard and 1000 times more toxic than Low Hazard.

**Hazard Rating 1 (Extreme Hazard):** is waste of first priority concern, containing significant concentrations of extremely toxic substances, including certain carcinogens, teratogens and infectious wastes.

**Hazard Rating 2 (High Hazard):** is waste of second priority concern with highly toxic characteristics or extremely toxic substances, which are not persistent, including certain carcinogens.

**Hazard Rating 3 (Moderate Hazard):** is waste of third priority concern, which is moderately toxic or which contains substances that are potentially highly harmful to human health or to the environment but are not persistent.

**Hazard Rating 4 (Low Hazard):** is waste that often occurs in large quantities and which contains potentially harmful substances in concentrations that in most instances would represent only a limited threat to human health or the environment.

The Hazard Rating determines the class of landfill at which a waste is disposed:

- Hazard Rating 1 \(\rightarrow\) \(H: H\) landfill
- Hazard Rating 2
- Hazard Rating 3 \(\rightarrow\) \(H: H\) or \(H: h\) landfill
- Hazard Rating 4
The requirements for the siting, investigation, design, operation and monitoring of Hazardous Waste landfill are more stringent than those for a General Waste landfill. In turn, the requirements for an H: H landfill are more stringent than those for an H: h landfill.

## APPENDIX 1: Types of hazardous waste and associated laboratory tests

<table>
<thead>
<tr>
<th>TYPE OF WASTE</th>
<th>HAZARDOUS SUBSTANCES</th>
<th>LAB TESTS FOR DISPOSAL PURPOSES (Not Specified In Code)</th>
<th>CODE 0228 HAZARD CLASS (see Appendix 2)</th>
<th>SUBSIDIARY RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMINE</td>
<td>• Amine, (corrosive, flammable) Hydrogen sulphide</td>
<td>• pH</td>
<td>8</td>
<td>Flammable liquid</td>
</tr>
<tr>
<td></td>
<td>• Amine, sludge</td>
<td>• Amine strength</td>
<td>2(2.3)</td>
<td>Flammable gas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sulphide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASBESTOS</td>
<td>• Blue / Brown asbestos</td>
<td>N/A</td>
<td>9</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>• White asbestos</td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>BATTERIES, e.g.</td>
<td>• Lead acetate</td>
<td>N/A</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOILER WASHINGS</td>
<td>• Boiler ash</td>
<td>• pH</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• heavy metals: vanadium, refractory pieces, sulphur, carbon/soot deposits</td>
<td>• Vanadium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CATALYSTS</td>
<td>• Spent FCCU catalyst</td>
<td>• pH</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cat-poly catalyst</td>
<td>• % Vanadium,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sulphur catalyst</td>
<td>• pH</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Vanadium</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>house MSDS required for all catalysts</td>
<td>4.1</td>
<td></td>
</tr>
<tr>
<td>CAUSTIC</td>
<td>• spent caustic</td>
<td>• Caustic Strength</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• caustic washings</td>
<td>• Phenol</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Tank sludge from caustic storage</td>
<td>• Mercaptan/Sulphide</td>
<td>3</td>
<td>Toxic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• pH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CERAMIC FIBRE</td>
<td>Treated as Asbestos</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHARCOAL / ACTIVATED CARBON</td>
<td>• Activated carbon</td>
<td>N/A</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>TYPE OF WASTE</td>
<td>HAZARDOUS SUBSTANCES</td>
<td>LAB TESTS FOR DISPOSAL PURPOSES (Not Specified In Code)</td>
<td>CODE 0228 HAZARD CLASS (see Appendix 2)</td>
<td>SUBSIDIARY RISK</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
<td>----------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>LABORATORY</td>
<td>Consult the SABS Code using the chemical names</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEADED COMPOUNDS</td>
<td>• Inorganic lead</td>
<td>• Inorganic lead</td>
<td>6.1 (111)</td>
<td></td>
</tr>
<tr>
<td>Sandblasting grit/sand from</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sandblasting outside of lead</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>storage containers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEAD COMPOUNDS</td>
<td>• Lead</td>
<td>• Organic lead, Inorganic Lead, Total Lead</td>
<td>6.1 (1)</td>
<td></td>
</tr>
<tr>
<td>organic sludges in gasoline</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tanks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>contaminated material such as</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rags / gloves</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFF-SPEC PRODUCT, such as</td>
<td>Tars, including asphalt and bitumen (Flammable)</td>
<td>• Flashpoint, Vanadium, Sodium</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Bitumen</td>
<td>Heavy metals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REFRACTORY</td>
<td>• Vanadium</td>
<td>Vanadium</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td>SAND</td>
<td>• Hydrocarbons, Heavy metals (if heavier product streams</td>
<td>• Flashpoint, Vanadium, sodium (for fuel oil, vac. resid.)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Oil contaminated sand from oil</td>
<td>Lead (if leaded gasoline)</td>
<td>• Lead (if leaded gasoline)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>spills</td>
<td>• Sandblasted sand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Contaminated sand from tanks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCALE / RUST</td>
<td>• Iron oxides (non-hazardous unless pyrophoric)</td>
<td></td>
<td>4.2 (only if pyrophoric)</td>
<td></td>
</tr>
<tr>
<td>from tanks / vessels</td>
<td>• heavy metals*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLUDGES</td>
<td>• Silica, algae/ (insects), iron (non-hazardous)</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TYPE OF WASTE</td>
<td>HAZARDOUS SUBSTANCES</td>
<td>LAB TESTS FOR DISPOSAL PURPOSES (Not Specified In Code)</td>
<td>CODE 0228 HAZARD CLASS (see Appendix 2)</td>
<td>SUBSIDIARY RISK</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>---------------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>----------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>• Sludge ex vessels e.g. Desalter</td>
<td>(Dependent on vessel)</td>
<td>• Heavy metals*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Heavy metals*</td>
<td>• Phenol</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Phenol</td>
<td>• Sulphide</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sulphide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Oily separator sludges (Retention pond, impounding basin)</td>
<td>Lead, phenol, heavy metals*, oil</td>
<td>• Total lead, heavy metals, phenol</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Flammable hydrocarbon</td>
<td>• Flashpoint of hydrocarbon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Tank bottom sludges (Fuel oil, Vacuum residue)</td>
<td>Heavy metals*</td>
<td>• Vanadium, sodium</td>
<td>6.1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>• Flammable hydrocarbons</td>
<td>• Flashpoint</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Bitumen sludges</td>
<td>Heavy metals*</td>
<td>• Nickel, vanadium, sodium</td>
<td>6.1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>• Flammable liquid</td>
<td>• Flashpoint</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lead</td>
<td>• Total lead (organic/inorganic lead)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Gasoline leaded tank sludges</td>
<td>Same as for boiler washings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Ash hopper sludges</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Spillage of Product / Cleaning of Process Area</td>
<td>Hydrocarbons</td>
<td>• Flashpoint</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Heavy metals if heavy products</td>
<td>• Lead (if leaded gasoline)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Vanadium (if other hydrocarbons)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Sulphuric Acid</td>
<td>spent liquid</td>
<td>• pH</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>tank sludge</td>
<td>• Acid strength</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>• Vanadium Contaminated Sand / Dust</td>
<td>Vanadium dust</td>
<td>• % Vanadium</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td>• Fuel Oil Blend</td>
<td>Flammable</td>
<td>• Flash Point</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heavy Metals</td>
<td>• Catalyst Content</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Vanadium</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Heavy metals*
Heavy metals come in with the crude and tend to concentrate in the fuel oil and the heavier process streams:

- Vanadium - classified as hazardous in SABS Code (highest concentration)
- Sodium - classified as hazardous in SABS Code
- Nickel - only hazardous when bonded to another chemical in a compound (check SABS Code 0228)
- Aluminium - only hazardous when bonded to another chemical in a compound (check SABS Code 0228)
- Copper - only hazardous when bonded to another chemical in a compound (check SABS Code 0228)
Substances that are also listed in the SABS Code 0228, of interest to the Refinery, include the following:

<table>
<thead>
<tr>
<th>HAZARDOUS SUBSTANCES</th>
<th>CODE 0228 HAZARD CLASS (see Appendix 2)</th>
<th>SUBSIDIARY RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Calcium/alloys</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>2(2.3)</td>
<td>Flammable Gas</td>
</tr>
<tr>
<td>Cobalt catalyst</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>• dry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• wetted with liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude oil</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Cyanide, solution or inorganic solid</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td>Diesel fuel, oil;</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Dimethyl disulphide (DMDS)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Fuel oil (kerosene)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Gasoline</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Hydrocarbon gas, liquefied, compressed</td>
<td>2(2.1)</td>
<td></td>
</tr>
<tr>
<td>Hydrocarbons</td>
<td>3</td>
<td>Flammable</td>
</tr>
<tr>
<td>Hydrogen and carbon monoxide, mixture</td>
<td>2(2.3)</td>
<td></td>
</tr>
<tr>
<td>Hydrogen peroxide</td>
<td>5.1</td>
<td>Corrosive</td>
</tr>
<tr>
<td>Hydrogen sulphide</td>
<td>2(2.3)</td>
<td>Flammable Gas</td>
</tr>
<tr>
<td>Liquified petroleum gases</td>
<td>2(2.1)</td>
<td></td>
</tr>
<tr>
<td>Mercaptan mixture, liquid</td>
<td>6.1</td>
<td>Flammable liquid</td>
</tr>
<tr>
<td>Metal Catalyst, dry</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Motor fuel anti-knock mixture</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td>Petroleum distillates or petroleum products</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Phenol, solution</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td>Sodium</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>Sulphides, pyrophoric</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Sulphur/Sulphur, molten</td>
<td>4.1</td>
<td></td>
</tr>
<tr>
<td>Sulphur dioxide, liquefied</td>
<td>2(2.3)</td>
<td>Corrosive</td>
</tr>
<tr>
<td>Sulphur dioxide solution</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Tars, liquid including asphalt and bitumen</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 2: SABS Code 0228 classes

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1</td>
<td>Explosives</td>
</tr>
<tr>
<td>Class 2</td>
<td>Gases: compressed, liquified or dissolved under pressure</td>
</tr>
<tr>
<td>2.1</td>
<td>Flammable gases</td>
</tr>
<tr>
<td>2.2</td>
<td>Non-flammable gases</td>
</tr>
<tr>
<td>2.3</td>
<td>Poisonous gases</td>
</tr>
<tr>
<td>Class 3</td>
<td>Flammable liquids</td>
</tr>
<tr>
<td>3.1</td>
<td>Low flashpoint group of liquids; flashpoint below - 18 deg. C c.c. *</td>
</tr>
<tr>
<td>3.2</td>
<td>Intermediate flashpoint group of liquids; flashpoint of - 18 deg. C up to, but not exceeding 23 deg. C c.c. *</td>
</tr>
<tr>
<td>3.3</td>
<td>High flashpoint group of liquids; flashpoint up to, and including 61 deg. C c.c. *</td>
</tr>
<tr>
<td>Class 4</td>
<td>Flammable solids or substances</td>
</tr>
<tr>
<td>4.1</td>
<td>Flammable solids</td>
</tr>
<tr>
<td>4.2</td>
<td>Flammable solids liable to spontaneous combustion</td>
</tr>
<tr>
<td>4.3</td>
<td>Flammable solids which emit flammable gases when in contact with water</td>
</tr>
<tr>
<td>Class 5</td>
<td>Oxidizing substances</td>
</tr>
<tr>
<td>5.1</td>
<td>Oxidizing agents</td>
</tr>
<tr>
<td>5.2</td>
<td>Organic peroxides</td>
</tr>
<tr>
<td>Class 6</td>
<td>Poisonous (toxic) and infectious substances</td>
</tr>
<tr>
<td>6.1</td>
<td>Toxic substances</td>
</tr>
<tr>
<td>6.2</td>
<td>Infectious substances</td>
</tr>
<tr>
<td>Class 7</td>
<td>Radioactive substances</td>
</tr>
<tr>
<td>Class 8</td>
<td>Corrosives</td>
</tr>
<tr>
<td>Class 9</td>
<td>Other miscellaneous substances, that is, any other substance which experience has shown, or may show, to be of such dangerous character that the provisions of the Section should apply to it.</td>
</tr>
</tbody>
</table>

* c.c. = closed cup test.