

2.1 GOVERNMENT DEPARTMENTS AND REGULATORS

There are a number of Ministries and Departments that have an interest in and will take responsibility for ensuring that the proposed development is implemented in an environmentally responsible manner. The concept of co-operative governance is becoming increasingly important in relation to the adjudication of Environmental Impact Assessment (EIAs) in South Africa and whenever an activity falls within the jurisdiction of more than one organ of state, there must be co-ordination and co-operation between those organs of state in the consideration of EIAs and decision-making.

2.1.1 National

Department of Environmental Affairs (DEA)

The DEA falls under the Ministry of Water and Environmental Affairs and is responsible for environmental affairs and decision making.

In terms of South Africa's Constitution, responsibility for the environment is shared between provincial and national government. Decision-making on EIAs is usually, as in this case, a provincial competency. However, the DEA is the decision making authority for the Waste Management License.

Department of Water Affair and Sanitation (DWAS)

The (now) DWAS falls within the Ministry of Water and Sanitation and is the custodian of South Africa's water resources. While striving to ensure that all South Africans gain access to clean water and safe sanitation, the department also promotes effective and efficient water resources management to ensure sustainable economic and social development.

Unlike the environmental authorities which have a national body and provincial departments in each province, DWAS has regional offices in different areas. The DWAS regional office in Cape Town is registered as a commenting authority for the EIA application.

Department of Energy (DoE)

The Department of Energy is responsible for policy relating to all forms of energy generation, including energy from hydrocarbons. The Department commissioned an Integrated Energy Plan (IEP) in response to the requirements of the National Energy Policy in order to provide a framework by which specific energy policies, development decisions and energy supply trade-offs could be made on a project-by-project basis. The framework is intended to create a balance between energy demand and resource availability.

National Energy Regulator of South Africa (NERSA)

NERSA is a regulatory authority established in terms of the National Energy Regulator Act, 2004 (Act No. 40 of 2004). Its role, among others, is to regulate the oil and gas industry.

South African Heritage Resources Agency (SAHRA)

SAHRA is the national body responsible for policy development for heritage resources management. They are the controlling authority in terms of the National Heritage Resources Act (Act 25 of 1999).

Department of Transport

The Department of Transport is responsible for regulation of Transportation in South Africa, including, public transport, rail transportation, civil aviation, shipping, freight and motor vehicles.

The South African National Roads Agency SOC Limited, generally known as SANRAL, is an independent, statutory company registered in terms of the Companies Act. The South African government, represented by the Minister of Transport, is the sole shareholder and owner of SANRAL. SANRAL is responsible for the management and maintenance of the national road network of South Africa.

SANRAL is included on the stakeholder database and will be contacted for comment.

2.1.2

Provincial

Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)

The DEA&DP is a provincial authority which falls under the Western Cape Provincial Government and is responsible for environmental affairs and decision making in the Western Cape Province.

In terms of South Africa's Constitution, responsibility for the environment is shared between provincial and national government. The DEA&DP is the competent authority who will decide whether or not to issue environmental authorization for the Project.

Heritage Western Cape

Heritage Western Cape (HWC) is the provincial heritage resources authority for the Western Cape. HWC seeks to identify, protect and conserve heritage resources of the Western Cape. HWC was established in January 2003 in terms of the National Heritage Resources Act, Act 25 of 1999. HWC is also

mandated to promote co-operative governance between the national, provincial and local authorities.

In accordance with National Heritage Resources Act (Act No. 25 of 1999) a Notice of Intent to Develop (NID) was submitted to HWC, and a response from HWC received on the 30 January 2012 stating that no heritage specialist assessment be required for the proposed development (see *Annex E*).

2.1.3 *Municipal*

Certain Departments, such as the Cape Town Metropolitan Municipality will also be involved as a commenting authority for the EIA. External to the EIA but also relevant to the Project are land-use planning applications which are dealt with by the planning departments at a local government level.

2.2 *APPLICABLE LEGISLATION, POLICY AND GUIDELINES*

The proposed activity is subject to legislative and policy requirements at a national, provincial and metropolitan level. The most important of these includes the following:

National:

- National Environmental Management Act (Act No. 107 of 1998), as amended;
- NEMA EIA Regulations 2010, (Government Notice No R543, R544, R545 and R546 of June 2010);
- National Environmental Management Waste Act (Act No. 59 of 2008);
- National Environment Management: Air Quality Act (Act No. 39 of 2004);
- National Water Act (Act No. 36 of 1998);
- National Environmental Management: Biodiversity Act (Act No. 10 of 2004);
- National Heritage Resources Act (Act No. 25 of 1999);
- Petroleum Pipelines Act of 2003 (Act No. 60 of 2003);
- Hazardous Substances Act (Act No. 15 of 1973);
- Occupational Health and Safety (Act No. 85 of 1993);
- Major Hazard Installations Regulations (GNR 96 of 998 and GNR 692 of 2001); and
- Integrated Coastal Management Act (Act No. 24 of 2008).

Provincial:

- Department of Environmental Affairs & Development Planning (DEA&DP) NEMA EIA Regulations Guideline and Information Document Series, 2010.

Metropolitan:

- Cape Town Metropolitan Integrated Waste Management By- Law;
- Wastewater and Industrial Effluent By-law;
- Stormwater Management By-law;
- Treated Effluent By-law;
- Cape Town Metropolitan Municipality By-law for Air Pollution Control; and
- Bylaw relating to community fire safety.

Other relevant guidelines and policies:

- SANS 10089-1; 2008: The petroleum industry part one; Storage and distribution of petroleum products in above- ground bulk installations.
- SANS 10089-2: 2008: The petroleum industry part two; Electrical and other installations in the distribution and marketing sector;
- SANS 10108: 2005; The classification of hazardous locations and the selection of apparatus for use in such locations;
- SANS 10105: The use and control of fire fighting equipment;
- TNPA: Instructions governing the lease of sites for the reception, storage, handling and distribution of petroleum and chemical products (Revised August 2002);
- The Liquid Fuels Energy Security Master Plan (2007);
- The Port of Cape Town Port Development Plan (2013);
- The Draft Strategic Stocks Petroleum Policy (2013);
- The National Development Plan (2012); and
- National Norms and Standards for the Storage of Waste (2013)

A brief description of the requirements for the key legislation listed above is provided below.

2.2.1 *National Environmental Management Act (Act 107 of 1998)*

Section 24 of the National Environmental Management Act (NEMA) as amended gives effect to the South African Constitution, which states that all South African citizens have a right to an environment that is not harmful to their health or well-being.

NEMA requires that activities be investigated that may have a potential impact on the environment, socio-economic conditions, and cultural heritage. The results of such investigation must be reported to the relevant authority. Section 24(C) of the Act defines the competent decision-making authority, which in this case is the provincial environmental department, the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP).

Key principles of NEMA are described in Chapter 1 of the Act and include the following:

- Development must be socially, environmentally and economically sustainable;
- Environmental management must be integrated;
- Decisions concerning the environment must take into account the needs, interests and values of all I&APs;
- Community well-being and empowerment must be promoted through environmental education and awareness, and the sharing of knowledge and experience;
- Decisions must be taken in an open and transparent manner; and
- Access to information must be provided in accordance with law.

Chapter 5 of NEMA deals with Integrated Environmental Management and focuses on promoting the use of appropriate environmental tools, such as Environmental Impact Assessment. Section 24 requires that activities be investigated that may have a potential impact on the environment, socio-economic conditions, and cultural heritage. The results of such investigations must be reported to the relevant authority. Procedures for the investigation and communication of the potential impact of activities are contained in Section 24 (4) of the Act, which requires that:

- The potential impact, including the cumulative effects of the activity and its alternatives must be investigated;
- The significance of the potential impact must be assessed;
- Mitigation measures which minimise adverse environmental impacts must be investigated;
- The option of not implementing the activity must be considered;
- There must be public participation, independent review and conflict resolution in all phases of the investigation and assessment of impacts; and
- Where an activity falls within the jurisdiction of more than one organ of state, there must be co-ordination and co-operation between those organs of state in the consideration of assessments.

Chapters 1 and 5 of NEMA provide a basis for consideration of potential impacts associated with a proposed development, by the competent authority.

These chapters provide the framework legislation for the more detailed EIA regulations (see *Section 2.2.2* below). These regulations form the basis of ERM's approach to the EIA.

Section 28 of the Act is specific regarding "duty of care" for the environment and remediation of environmental damage. Accordingly, every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring. The Act defines pollution broadly as any change in the environment caused by substances, radioactive or other waves, or emissions of noise, odours, dust or heat.

The environmental authorities may direct an individual or organisation to rectify or remedy a potential or actual pollution problem. If such a directive is not complied with, the authorities may undertake the work and recover the costs from the responsible party.

Section 28 would be relevant to the construction and operational phase of the proposed development. The proponent is obligated, in terms of NEMA, to implement measures and take actions to prevent any form of pollution to air, water or land.

2.2.2 *NEMA EIA Regulations*

On 18 June 2010 revised EIA Regulations (Government Notice No R. 543, 544, 545 and 546) were promulgated in terms of Section 24(5) of NEMA. These regulations came into effect on 1 August 2010, replacing the regulations of 21 April 2006. A description of these regulations is provided below.

The Minister of Water and Environmental Affairs has in terms of Sections 24(2)(a) and (d) of NEMA, listed the activities which may have a detrimental effect on the environment in Government Notices GN544, 545 and 546. The regulations require that written authorisation is obtained from the Minister or his delegated authority, in this case the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP), in respect of which the investigation, assessment and communication of potential impacts of these activities must follow the procedure as described in Regulations 26 to 35 of the EIA Regulations. Such authorisation, which may be granted subject to conditions, will only be considered once the regulatory requirements have been met. Government Notice R543 sets out the procedures that need to be complied with.

The activities that would be relevant to the Project are listed in the Environmental Impact Assessment (EIA) Regulations. Activities from listing GN545 would be relevant. While GN544 activities require a Basic Assessment process, GN545 activities require a more comprehensive Scoping and EIA process. Given the applicability of activities from GN545, a Scoping and EIA process is being undertaken. The listed activities which may be triggered by the proposed development include:

GN R545

Activity 3. *The construction of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic meters.*

The proposed storage capacity of the facility is approximately 109,400m³.

Activity 24. *Construction or earth moving activities in the sea, an estuary, or within the littoral active zone or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater, in respect of:*

- (i) facilities associated with the arrival and departure of vessels and the handling of cargo;
 - (ii) piers;
 - (iii) inter- and sub-tidal structures for entrapment of sand;
 - (iv) breakwater structures;
 - (v) coastal marinas;
 - (vi) coastal harbours or ports;
 - (vii) structures for reclaiming parts of the sea;
 - (viii) tunnels; or
 - (ix) underwater channels;
- but excluding –
- (a) activities listed in activity 16 in Notice 544 of 2010,
 - (b) construction or earth moving activities if such construction or earth moving activities will occur behind a development setback line;
 - (c) where such construction or earth moving activities will occur in existing ports or harbours where there will be no increase of the development footprint or throughput capacity of the port or harbour; or
 - (d) where such construction or earth moving activities takes place for maintenance purposes.

The proposed fuel storage and distribution facility will require construction and earthmoving equipment within 100m of the high water mark, and will increase the footprint and throughput of the Port of Cape Town. Burgan Cape Terminals understands that although this activity is not always interpreted by authorities as relevant for a Project of this kind in these circumstances, we think that it will increase the development footprint (defined in the Regulations to mean "any evidence of physical alteration as result of the undertaking of any activity, which will clearly be the case here) and the throughput capacity of the harbour (if the Project proceeds it will be possible to receive, store and distribute quantities of fuel which the Harbour cannot do now) . It is therefore requested that this activity is interpreted as relevant to the Project by the Department of Environmental Affairs and Development Planning.

Activity 26. *Commencing of an activity, which requires an atmospheric emission license [sic] in terms of section 21 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), except where such commencement requires basic assessment in terms of Notice of No. R544 of 2010.*

The proposed fuel storage capacity is anticipated to be 109,400m³ and therefore an atmospheric emissions licence will be required.

2.2.3 **National Environmental Management: Waste Act (Act 59 of 2008)**

The National Environmental Management: Waste Act (Act 59 of 2008) (NEMWA) is the major piece of legislation governing waste management in South Africa and is relevant to all aspects of both hazardous and non-hazardous waste management.

It aims to regulate waste management in order to protect human health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development. In this regard, it provides for the following issues related to waste management:

- Institutional arrangements and planning matters;
- National norms and standards for regulating the management of waste;
- Specific waste management measures;
- Licensing and control of waste management activities;
- The remediation of contaminated land;
- A national waste information system; and
- The issue of compliance and enforcement.

Relevant definitions are detailed in *Table 1.1* and the sections of the Act relevant to the Project are outlined below.

Table 2.1 *Relevant Definitions Include the Following*

Term	Definition
Contaminated	The presence in or under any land, site, buildings or structures of a substance or micro-organism above the concentration that is normally present in or under that land, which substance or micro-organism directly or indirectly affects or may affect the quality of soil or the environment adversely.
Holder of waste	Means any person who imports, generates, stores, accumulates, transports, processes, treats, or exports waste or disposes of waste Any change in the environment caused by -
Pollution	(i) substances; (ii) radioactive or other waves; or (iii) noise, odours, dust or heat, emitted from any activity, including the storage or treatment of waste or substances, construction and the provision of services, whether engaged in by any person or an organ of state, where that change has an adverse effect on human health or well-being or on the composition resilience and productivity of natural or managed ecosystems, or on materials useful to people, or will have such an effect in the future.

General Duties of Holders of Waste

Section 16 of the Act sets out the general duties with respect to environmentally sound waste management, which any 'holder of waste' is obliged to adhere to. This requires taking all reasonable measures to:

- avoid the generation of waste and where such generation cannot be avoided, to minimise the toxicity and amounts of waste that are generated;
- reduce, re-use, recycle and recover waste;
- ensure that the waste is treated and disposed of in an environmentally sound manner, only when it cannot be disposed of;
- manage the waste in such a manner that it does not endanger health or the environment or cause a nuisance through noise, odour or visual impacts;
- prevent any employee or any person under his or her supervision from contravening this Act; and
- prevent the waste from being used for an unauthorised purpose.

Reduction, Re-use, Recycling and Recovery of Waste

Section 17 of the Act requires any person involved in the reduction, re-use, recycling and recovery of waste to undertake such activities using less natural resources and in such a way as to cause less environmental harm than would be the case if the same waste were to be disposed of.

Remediation of Contaminated Sites

Prior to the promulgation of NEMWA, remediation of contaminated land was primarily regulated in terms of Section 28 of NEMA and the National Water Act, 1998 (NWA). This relates to the Duty of Care provision contained within NEMA and Section 19 of NWA, which relates to prevention and remedying the effects of pollution. Part 8 of the Waste Act builds on this existing legislation by providing a more coherent administrative framework and set of procedures, which are intended to be retroactively active.

Although Part 8 of the Act is not yet in effect, owing to the lack of norms and standards to make these provisions effective, this section may have implications for the Project in the future. Accordingly, the specific steps related to the associated remediation process are discussed in further detail below. *Box 2.1* also provides additional information on the current status of Part 8, namely the 'contaminated land' section of NEMWA.

Section 36 (5) of the Act states that "an owner of land that is significantly contaminated, or a person who undertakes an activity that caused the land to be significantly contaminated, must notify the Minister and MEC of that contamination as soon as that person becomes aware of the contamination."

This effectively means that all contaminated sites will, once the section comes into effect, have to be reported to government, even if the contamination took place before this Act was promulgated. It also means that a land owner can independently notify the Minister if contamination is detected.

Section 37 details aspects that should be considered in a site assessment report, for example:

- The type of contaminants and their related toxicity and mobility;
- Exposure pathways that may be present;
- The surrounding land use and the likelihood of contaminants migrating off site; and
- What measures are to be taken to manage or neutralise the risk associated with contaminants.

Furthermore, Section 37 states that land will be regarded as contaminated – even if the risk is currently acceptable – when there is a possibility of a future land change that will cause a different risk scenario.

Section 38 deals with the review and decision of the Minister or MEC in conjunction with the (former) Department of Water Affairs and Forestry, based on the site assessment report. There are four possible decisions:

- Land is contaminated and presents a risk to health or the environment and urgent remediation is required;
- Land is contaminated and presents a risk to health or the environment and remediation over a specified period is required;
- Land is contaminated and does not present an immediate risk to health or the environment and monitoring is required to address the risk; or
- Land is not contaminated.

Once the Minister or MEC has declared affected land a remediation site, a Remediation Order will be issued to neutralise the risk. The cost for remediation falls upon the person against whom the order is issued. A Remediation Order may be amended if ownership of the site is transferred and the new owner in writing assumes responsibility for the remediation.

Section 39 deals with Remediation Orders. Noteworthy in this section is that the order must specify the timeframe in which remediation needs to take place and that there could be restrictions on land use. Predicting remediation timeframes can be difficult and site assessment reports and pilot studies will have to be done thoroughly so as to present realistic timeframes. Orders can be amended if new information comes to light.

Section 40 states that no contaminated site can be transferred without making it known to the new owner. If the site is a remediation site, the Minister or MEC needs to be notified as well.

Section 41 makes provision for a national Contaminated Site Register that is kept by the Minister. This register has to contain all details about contaminated sites as well as the progress of remedial activities. Sites may be taken off the register when remediation orders have been complied with.

Box 2.1 below describes the current status of Part 8.

Given the implications of Sections 36 – 41, it is not surprising that these provisions have been withheld from the version of the Act that came into effect in July 2009. The main reason purportedly for the exclusion of these sections is the lack of norms and standards which are necessary to make the provisions effective.

The “Framework for the Management of Contaminated Land” guidance document was published by the Department of Environmental Affairs in May 2010. This document defines soil screening values for a number of chemical compounds for preliminary assessment of contaminated land and it describes the phased process by which contaminated land should be assessed. Of note is that the Framework recognises that site specific quantitative risk assessment (QRA) is international best practice and provides guidance for the use of QRA to assess contaminated land.

Although the soil screening values provide norms and standards to support enactment of Sections 36-41, this has not yet happened.

The process of finalising the norms and standards to bring part 8 of the new Waste Act into effect is currently underway and should be completed towards the end of this year (2011). The existing Sections 36 – 41, as described above, will not change. They will come into effect by a proclamation of a Government Gazette Notice as soon as they can be supported by the norms and standards.

There is no evidence to suggest that the land on which the proposed Project is to be built is contaminated.

The Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste (1998) and the Hazardous Substances Act (Act 15 of 1973) are also included in this section as they have some relevance to waste management. These are described in more detail in *Table 1.2* below.

Table 2.2 Other Pieces of Legislation Related to Hazardous Substances

Legislation	Requirement
Hazardous Substances Act (Act 15 of 1973)	<p>Control of Hazardous Substances</p> <p>The Act regulates the control of hazardous substances and electronic products according to SANS 10228. Hazardous substances are those substances which cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitising or flammable nature.</p> <p>Hazardous substances and products are classified according to the level of risk posed:</p> <ul style="list-style-type: none"> - Group I and II: toxic substance that may be found on a hazardous landfill -Group III :electronic products -Group IV: radioactive substances, which may not be disposed -of on a landfill. <p>The Act requires generators of waste to:</p> <p>Obtain license for the manufacture, modification, transport, storage, dumping or disposal of substances listed under the four groups of hazardous substances.</p> <p>Ensure that waste is transported and disposed of by an approved contractor at a licensed disposal site.</p> <p>Obtain and keep waste manifests and safe disposal certificates.</p> <p>Non-compliance may result in the imposition of a fine and/or imprisonment. Contravention of the provisions of the Act are an offence, and penalties range from the imposition of a fine to a sentence of up to ten years in jail.</p>
Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste (1998)	<p>Hazardous Waste Handling, Classification and Disposal</p> <p>The Minimum Requirements is a guideline document providing the applicable waste management standards and specifications which must be met unless there is a valid motivation to the contrary. The Minimum Requirements document includes detailed requirements for the identification and classification, disposal, transportation, handling and storage of hazardous waste.</p>

2.2.4 National Water Act (Act No. 36 of 1998)

The National Water Act (NWA) is the primary legislative instrument for the control and management of South Africa’s water resources. In addition to ensuring equitable access to and use of water, a key function of the NWA is to ensure the protection of a national water resource from pollution. Many provisions in the NWA are similar to those in NEMA, but refer specifically to pollution of a water resource, whereas NEMA refers to any change in an environment (land, water, air). The definition of “water resource” includes surface water bodies, groundwater and aquifers.

Section 19 of the Act deals with the prevention and remediation of pollution. It is the responsibility of an owner of land, a person in control of land or a person who occupies or uses that land to take all reasonable measures to prevent pollution of a water resource from occurring, continuing or recurring.

If these measures are not taken the authorities may do whatever is necessary to prevent the pollution or remedy its effects and may recover all reasonable costs. This Section includes pollution that may arise from contaminated stormwater.

Section 20 deals with the control of emergency incidents. In this Section, “incident” includes any incident or accident in which a substance –

- pollutes or has the potential to pollute a water resource; or
- has, or is likely to have, a detrimental effect on a water resource.

The onus is therefore on Burgan Oil to ensure that storm water runoff is not contaminated, particularly during the construction phase.

The Act requires a person to obtain a Water Licence for ‘water use’, which in terms of Section 21 includes the following activities which may be relevant to the Project:

- taking water from a water resource;
- storing water; and
- disposing of waste in a manner which may detrimentally impact on a water resource.

Generally a water use must be licensed unless it is listed in Schedule I of the Act, is an existing lawful use, is permissible under a general authorisation, or if a responsible authority waives the need for a licence. Section 39 of the Act allows the Minister to issue General Authorisations for certain activities which then do not require a water use licence.

Kantey and Templer (K & T) have drafted a drainage plan for the proposed development which outlines the philosophy and provides an understanding of the drainage system on site. The Drainage Philosophy has been designed with the intention of ensuring no pollutants enter the municipal stormwater system. Refer to *Chapter 4* for a detailed description of the drainage philosophy.

2.2.5 National Environmental Management: Air Quality Act, (Act 39 of 2004)

The National Environmental Management: Air Quality Act (AQA) replaces the repealed Atmospheric Pollution Prevention Act 45 of 1965, as of 1 April 2010 and represents a complete paradigm shift in air quality regulation. The objectives of this Act are:

- To protect the environment by providing reasonable measures for the protection and enhancement of the quality of air in South Africa;
 - prevention of air pollution and ecological degradation;
 - securing ecologically sustainable development while promoting justifiable economic and social development.

- Generally to give effect to Section 24(b) of the Constitution in order to enhance the quality of ambient air for the sake of securing an environment that is not harmful to the health and well-being of people.

Sections 21 and 22 of the Act deal with the listing of activities which the Minister or MEC believes has or may have a significant detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage. In the present case, the storage and handling in excess of 500 cubic meters of petroleum products is a scheduled process in terms of the Air Quality Act and Borgan Oil would need to apply for an Air Emissions License. The licence must detail, among other things: the maximum allowed amount, volume, emission rate or concentration of pollutants that may be discharged in the atmosphere, under normal and start-up/shut-down and maintenance conditions; operating requirement; reporting requirements; measuring requirements; and penalties for non-compliance.

Should an activity be listed (either nationally or provincially) no person may undertake such activity without a provisional atmospheric emission licence or an atmospheric emission licence. Under Section 36 of AQA, District and Local Municipalities are now charged with the implementation of the atmospheric emission licensing system, which must be applied for according to the procedure under Section 37 and 38 and GG No. 32962 (dated 17 February 2010).

An atmospheric emission licence will be needed for the Project and application for it will be made on completion of the EIA and final design of the facility.

Section 32 of the Act deals with the control of dust and states that the Minister or MEC may prescribe measures for the control of dust in specified places or area, steps that must be taken to prevent nuisance by dust, or other measures aimed at the control of dust. Currently there are no regulations under this Act; however local bylaws will still apply. Currently only the draft Air Emissions by-laws have been published, but are not yet in force.

2.2.6 *National Environmental Management: Biodiversity Act (Act 10 of 2004)*

Amongst other objectives, the Biodiversity Act seeks to provide for the management and conservation of biological diversity and its components, the sustainable use of indigenous biological resources, and the fair and equitable sharing of benefits arising from bio-prospecting of indigenous biological resources. It further seeks to provide for co-operative governance in biodiversity management and conservation.

Chapter 1 provides that the Act give effect to conventions affecting biodiversity to which South Africa is a party. These would include the United Nations Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), the Ramsar Convention and the Bonn Convention.

Significantly, the Act provides for the protection of ecosystems and species that are threatened or in need of protection and seeks to prevent the introduction and spread of alien or invasive species. As such, it controls and regulates:

- certain threatening activities occurring in identified ecosystems;
- certain activities which may negatively impact on the survival of identified threatened or protected species; and
- certain restricted activities involving alien or listed invasive species.

2.2.7 *Petroleum Pipelines Act of 2003 (Act No. 60 of 2003)*

NERSA regulates the petroleum pipelines and storage industry in accordance with the provisions of the Petroleum Pipelines Act of 2003 (Act No. 60 of 2003). Section 2 of the Act stipulates that it should:

- '(a) promote competition in the construction and operation of petroleum pipelines, loading facilities and storage facilities;*
- (b) promote the efficient, effective, sustainable and orderly development, operation and use of petroleum pipelines, loading facilities and storage facilities;*
- (c) ensure the safe, efficient, economic and environmentally responsible transport, loading and storage of petroleum;*
- (d) promote equitable access to petroleum pipelines, loading facilities and storage facilities;*
- (e) facilitate investment in the petroleum pipeline industry;*
- (f) provide for the security of petroleum pipelines and related infrastructure;*
- (g) promote companies in the petroleum pipeline industry that are owned or controlled by historically disadvantaged South Africans, by means of licence conditions to enable them to become competitive;*
- (h) promote the development of competitive markets for petroleum products;*
- (i) promote access to affordable petroleum products; and*
- (j) ensure an appropriate supply of petroleum to meet market requirements.'*

The provisions of the Act require that anyone wishing to construct and/or operate a petroleum pipeline, loading facility or storage facility is required to apply to NERSA for a licence to do so. NERSA is then mandated to undertake an evaluation of any proposed facility which includes the consideration of factors related to 'need and desirability'. These include whether the facility (taking cognisance of its size, purpose and location) is economically justifiable and appropriate.

2.2.8 *Regulations Governing the Importation of Fuel*

The Department of Energy (DoE) is the key regulatory authority that governs fuel imports. This is done primarily through an import licencing process in which any party wishing to import fuel is obligated to first enquire whether other local fuel producers have stock available in the country. The DoE then has the opportunity to assess the situation and tends to only grant permission to import once it can be confirmed that stock is not available locally. As per

DoE policy, “The import of refined products is restricted to special cases where local producers cannot meet demand. It is subject to state control to promote local refinery utilisation.”⁽¹⁾ Imports are also regulated indirectly through the Basic Fuel Price (BFP) which was introduced in order to regulate ‘international equivalent’ prices for fuel that refiners could charge (see *Chapter 7* for further discussion of the BFP).

2.2.9 *Occupational Health and Safety Act (Act 85 of 1993) and MHI Regulations of July 2001*

The purpose of this Act is to provide for the health and safety of persons at work or in connection with the use of equipment and machinery. It also provides for the protection of people other than employees from hazards arising from or in connection with activities of persons at work. In this regard an employer is required to bring about and maintain, as far as reasonably practicable, a work environment that is safe and without risk to the health and wellbeing of workers. The Act is administered by the Department of Labour who have established provincial offices. Occupational health and safety inspectors from these provincial offices undertake inspections and investigations at workplaces to ensure compliance with OHSA.

The Act covers *inter alia*:

- General duties of employers to their employees;
- Electing of Health and Safety Representatives and establishment of Health and Safety Committees; and
- Reporting and investigation of incidents.

Health and Safety aspects of the Project as well as employment and labour relations within the construction, operation and decommissioning phases of the Project will need to be undertaken in accordance with the Occupational Health and Safety Act (Act 85 of 1993).

(1) Quote from the DoE website (http://www.energy.gov.za/files/esources/petroleum/petroleum_lpg.html). Import permits are issued by the International Trade Administration Commission under the International Trade Administration Act, 71 of 2002, and on the recommendation of the Department of Energy under the *Guidelines Governing the Recommendations by the Department of Minerals and Energy to the International Trade Administration Commission in Respect of the Importation and Exportation of Crude Oil, Petroleum Products and Blending Components*, published in GN 1069 in *Government Gazette* 29328 of 3 November 2006,

A number of policy and planning issues are potentially relevant to the Project. This impact deals with the Project's broad compatibility with, and implications for, key policies and plans. This is done by considering the Project relative to the following:

- The Liquid Fuels Energy Security Master Plan (2007)
- The Port of Cape Town Port Development Plan (2013)
- The Draft Strategic Stocks Petroleum Policy (2013)
- The National Development Plan (2012)
- Competition policy with respect to the petroleum industry
- The Review of Fuel Specifications and Standards (2011)

2.3.1

Liquid Fuels Energy Security Master Plan

The basic functioning of the South African economy relies heavily on the petroleum industry and its ability to provide an un-interrupted supply of liquid fuels. The Liquid Fuels Energy Security Master Plan was released by the then Department of Minerals and Energy (DME) in 2007 primarily in response to the supply disruptions experienced in 2005. These had significant economic consequences, the costs of which were estimated at R925 million per day in 2005 Gross Domestic Product (GDP) terms ⁽¹⁾. The plan identified a number of capacity constraints and challenges faced by the petroleum sector in meeting energy demand. With reference to this assessment, the plan points out that the logistical infrastructure for petroleum products is strained (DME, 2007, pg 21):

1. *“Harbours: Limited fuel offloading infrastructure severely curtails the ability to import product shortfalls;*
2. *Oil Companies' Depots: limited on-loading and offloading infrastructure, as well as limited storage capacity, not only limits the ability of the industry's value chain to absorb supply shocks, but also impacts negatively on the operations of both petroleum pipelines and rail.”*

With regard to operational improvements at ports, the plan notes that “Ports operations are an integral part of the petroleum products logistical value chain. The projected demand growth for petroleum products, coupled with limited refining capacity in South Africa, as shown in recent studies, has begun to put additional pressure on the ports operations. The need for increased imports has placed strain on both the Durban and Cape Town harbours and related facilities.” (DME, 2007). Note that after including Cape Town among constrained ports in need of infrastructure, the plan places relatively more focus on the situation in Durban. This is understandable as it was the central regions of the country (which rely on Durban refineries and imports for a significant proportion of their fuel) that experienced the greatest challenges during costly fuel shortages in 2005.

(1) White Paper on Energy Policy (2008).

With regard to imports, the Plan comes out in favour of limiting these where possible, but not to such a degree that imports cannot take place when needed. It states that “In support of promotion of local production of liquid fuels, it is recommended that a policy of limited imports be re-endorsed with a dynamic component responding to the fluctuating levels of capacity to produce locally and to enable imports as production capacity changes with time.” (DME, 2007).

Aside from the Liquid Fuels Energy Security Master Plan, the DoE is in the process of drafting a 20-year Liquid Fuels Infrastructure Roadmap. When it becomes available, this plan is expected to provide more detailed guidance on fuels infrastructure.

2.3.2 *Port of Cape Town Port Development Plan*

The Port Development Plan (PDP) for the Port of Cape Town was developed by Transnet recently along with PDPs for all the other ports in South Africa. With regard to expansion the PDP notes that, “The port is currently expanding the container terminal to handle larger vessels and increase throughput capacity. Short term plans include a dedicated two-berth passenger terminal, the expansion of the landside area for ship repair and the development of 160ha of the Culemborg site for back-of-port commercial logistics. Medium term plans include expanding the container stacking seaward and in the long-term building an outer basin for an additional four-berth container terminal, and five extra liquid bulk berths” (Transnet, 2013). The PDP also contains short medium and long term port layout plans. Regarding the liquid bulk areas, the short term layout earmarks the entire Eastern Mole for this purpose and therefore accords with Project (see *Figure 2.1*).

Figure 2.1 *Port of Cape Town Port Development Plan: Short-term Layout*



Source: Transnet, 2013.

2.3.3

Draft Strategic Stocks Petroleum Policy

The Department of Energy (DoE) released the Draft Strategic Stocks Petroleum Policy in 2013. Again, this was partially a response to the supply disruptions experienced in 2005. The overall aim of the policy is to “ensure the uninterrupted supply of petroleum products in the country through the provision of adequate strategic stocks and infrastructure such as storage facilities” (DoE, 2013). The policy identifies the age of the refineries in the country as a strategic concern, as catastrophic events at these facilities would severely disrupt supply. South Africa currently holds oil reserves, but not refined product reserves. The rectification of this situation is a key goal of the policy. The draft policy consequently recommends that petroleum manufacturers hold 14 days of refined product stocks relative to their respective market shares. It recognises that significant investment in storage capacity will be required in order to achieve this goal, and estimates that approximately 62 new tanks will be needed for the country as a whole (assuming a average tank capacity of 200,000m³) (DoE, 2013). Since one of the key features of the facility is the construction of additional storage, the Project is broadly supportive of the draft policy.

2.3.4

Competition Policy

The current petroleum industry structure in South Africa allows for limited competition and does not comply with the Competition Act, 1998 (Act No.89 of 1998) (Rambau, 2011). With this in mind the Competition Commission proposed an investigation into the industry. However, in 2009 the Minister of Trade and Industry announced a special designation of the petroleum industry given its strategic importance and contribution to economic stability. The designation period ends on 31 December 2015. It enabled the South African Petroleum Industry Association (SAPIA) to win exemption from current competition legislation until the end of 2015 so that interaction between key role players can take place with regard to supply issues, logistics planning and pipeline operations to avoid future fuel shortages and facilitate security of supply (Rambau, 2011). In granting the exemption the Competition Commission imposed certain conditions aimed at minimizing anticompetitive outcomes and promoting greater participation in the sector. These include (Rambau, 2011):

- SAPIA and its members may not share competitively sensitive information, except for the purposes described in the exemption application;
- SAPIA and its members may not share information relating to setting margins, imposition of levies and/or the approval of tariffs unless required to do so by the Department of Energy or NERSA; and

- SAPIA must open up its membership to accommodate both existing and potential marketers in the petroleum and refinery industry on fair, reasonable and transparent grounds.

Whether through internal industry processes or through processes such as those run by the Competition Commission it seems reasonable to assume that the petroleum industry is likely to move towards structural changes that will increase the level of competition.

For the purposes of this assessment it is important to ask whether the Project is likely to facilitate or hamper competition in the industry. It seems likely that competition will be increased since the Project would introduce new import, storage and distribution facilities to Cape Town. These would be the first form of competition to the existing facilities owned and operated by Chevron.

2.3.5

Review of Fuel Specifications and Standards

The DoE is in the process of reviewing South Africa's fuel specifications and standards and has released a Discussion Document on the Review of Fuel Specifications and Standards for South Africa (DoE, 2011). This document recommends that the sulphur content in petrol and diesel should be reduced from 500 parts per million (ppm) to 10 ppm, benzene from five percent to one percent and aromatics from 50 percent to 35 percent (DoE, 2011). In order to achieve these changes, highly significant investment will need to be made to upgrade all existing refineries in South Africa. The magnitude of the total investment required throughout South Africa was estimated at US\$3.7 billion in 2009 terms with a relatively low level of accuracy of +/- 40 percent (DoE, 2011).

The necessary refinery investments cannot be recovered given current government regulated fuel prices. Consequently, all the major petroleum refiners are in negotiations with the government to agree on a cost recovery mechanism (i.e. an equitable way for them to recover their costs). In initial planning, the DoE set a 2017 deadline for the necessary investments to be complete and operational for all refineries (DoE, 2011). This timeline, however, assumed earlier agreement on a cost recovery mechanism with refinery owners and is therefore no longer likely to be met by everyone. Based on experience with other refinery upgrade processes needed to meet new standards, a minimum four year lead time seems most likely (for example, if agreement is reached on cost recovery in the first quarter of 2014 then refinery upgrades need to be complete by first quarter 2018). Early movers in the refinery upgrade process have included Sapref in Durban (owned by BP and Shell) and Natref in Sasolburg (owned by Sasol and Total) both of whom have released statements committing to investment in initial engineering and design with a view to completing the necessary conversions by 2017 (see Kotze, 2012). The fuel sector specialist input provides further insights regarding potential impact of the proposed facility in meeting revised Clean Fuels 2 standards (see *Annex I*). It points out that a lack of agreement on finalising draft fuel specifications and cost recovery mechanisms for refinery

upgrades is likely to result in the Clean Fuels 2 starting date of July 2017 being missed. Under such a scenario, if continued robust demand Clean Fuels 2 compliant petrol and diesel is to be satisfied, there will be an increased requirement to import these fuels. This process could be facilitated by the infrastructure that would be provided by the proposed facility (Buley, 2014).

2.3.6 *National Development Plan*

The National Development Plan (NDP) does not deal extensively with the petroleum sector. It does, however, provide a degree of high level guidance. With regard to liquid fuels, it recommends that fuel refineries be upgraded to ensure they meet new fuel quality standards (i.e. Clean Fuels II) and that larger strategic fuel stocks be held to ensure security of supply (NPC, 2012). It also points out that local refining capacity necessitates imports and that there are essentially five options to deal with this.

- Build a new oil-to-liquid refinery (for example, the proposed Mthombo project in Coega).
- Build a new coal-to-liquid refinery.
- Upgrade the existing refineries, allow significant expansion of one or more of the existing refineries or do both.
- Import refined product.
- Build a refinery in Angola or Nigeria and buy a share of the product of that refinery.

After considering these options, the NDP concludes that, “The least risky and most cost-effective option is to continue importing a share of refined product until the country reaches a stage where it can absorb the output of either a new refinery or a major upgrade of an existing refinery. South Africa will therefore continue to import, taking a decision on the next step by 2016 or 2017 at the latest. Timing is important, given lead-time requirements to develop a new refinery (estimated at about eight to 10 years) that would be expected to produce output by 2025 to 2028 (if no other options are implemented). The decision will need to consider fuel security, employment, the current account, the rand, interest rates, fuel standards and competition.” (NPC, 2012). In essence, the NDP keeps options open and defers decision-making with regard to major new refinery capacity whilst recognising the need for imports.

2.3.7 *Discussion*

Based on the above, it seems reasonable to conclude that the Project is compatible with, and generally supportive of, the relevant national policies and plans including the parts of these plans which refer specifically to Cape Town and the Western Cape. These include those related to security of supply,

the maintenance of strategic stocks, infrastructural needs, spatial and capacity planning at the port and the facilitation of greater competition. However, one key area where compatibility is unclear is in respect of, 'the promotion of local petroleum production over imports where possible' as per DoE fuel security of supply planning guidance.

It is also important to bear in mind that the applicant will need to make a licence application to NERSA in order to be granted permission to establish the facility. As per its mandate, NERSA can then undertake an evaluation of the facility which includes the consideration of factors related to 'need and desirability' and policy compatibility. These include whether the facility (taking cognisance of its size, purpose and location) is economically justifiable and appropriate within the overall petroleum industry context.