Oiltanking

Environmental Impact Assessment for the proposed Bulk Liquid Storage and Handling Facility within Zone 8 of the Coega Industrial Development Zone (IDZ), Port of Ngqura, Nelson Mandela Bay Municipality

FINAL SCOPING REPORT

CSIR Report Number: CSIR/CAS/EMS/ER/2011/0027/B

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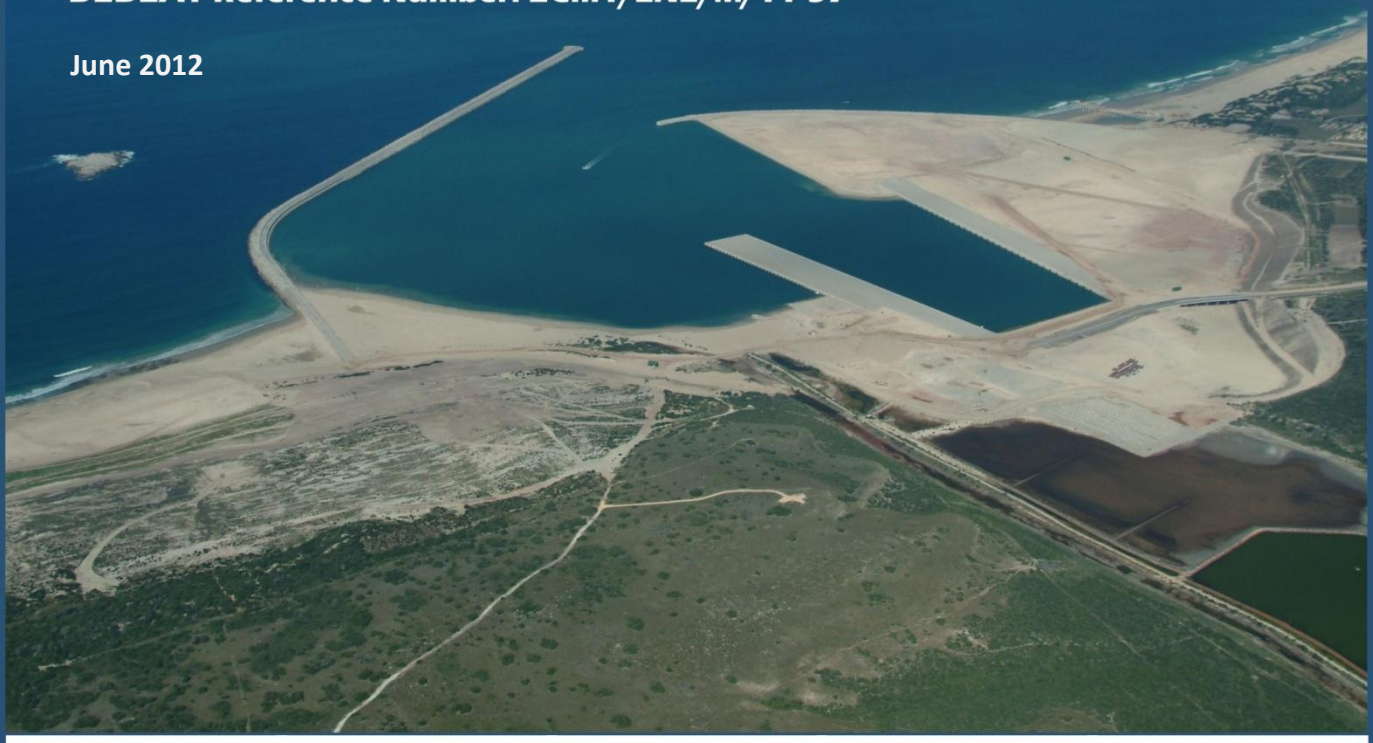

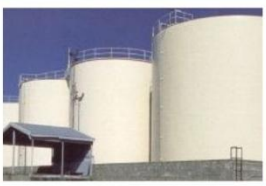

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Report details

Title:	**Environmental Impact Assessment for the proposed Bulk Liquid Storage and Handling Facility in Zone 8 of the Coega Industrial Development Zone (IDZ): FINAL SCOPING REPORT**
Purpose of this report:	This Final Scoping Report forms part of a series of reports and information sources that are being provided during the Environmental Impact Assessment (EIA) process for the proposed Bulk Liquid Storage and Handling Facility Project in Zone 8 of the Coega IDZ. In accordance with the EIA Regulations, the purpose of the Scoping Report is to: ▪ Provide a description of the proposed project, including a sufficient level of detail to enable stakeholders to identify relevant issues and concerns with potential negative and positive impacts; ▪ Describe the local environmental and development context within which the project is proposed, to assist further in identifying issues and concerns with potential negative and positive impacts; ▪ Provide an overview of the process that has been followed in the Scoping Phase, in particular the public participation process, as well as to present the draft Plan of Study for the EIA that would be followed in the subsequent EIA phase; ▪ Present the issues identified to date from the stakeholder engagement process, together with an explanation of how these issues and concerns with potential negative and positive impacts will be addressed through the EIA process. The Draft Scoping Report was made available to all stakeholders for a 40-day review period, which ended on 26 March 2012. Comments received on the Draft Scoping Report were incorporated into the Issues and Responses Trail which forms part of this Final Scoping Report. This Final Scoping Report is being made available to registered Interested and Affected Parties for a 21-day comment period. All comments on the Final Scoping Report are to be submitted directly to the Provincial Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), and a copy provided to Public Process Consultants by 19 July 2012.
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SUMMARY

Project Overview

Oiltanking Grindrod Calulo (PTY) Ltd (OTGC) is an independent bulk liquid storage provider in South Africa. The company is an amalgamation of the internationally renowned Oiltanking GmbH, as well as the locally based Grindrod South Africa (PTY) Ltd and Calulo Terminals (PTY) Ltd. Since its establishment, OTGC's objective has been to specialise and expand its operations in developing, constructing and operating liquid bulk storage terminals throughout South Africa. OTGC is proposing the establishment of a Bulk Liquid Storage and Handling Facility at the Port of Ngqura in Zone 8 of the Coega Industrial Development Zone (IDZ) situated near Port Elizabeth within the Nelson Mandela Bay Municipality (NMBM) of the Eastern Cape Province. Bulk liquids such as petrol, diesel, jet fuel, carbon black feedstock, paraffin, fuel oil, chemicals, Liquefied Petroleum Gas (LPG), petrol and diesel additives and biofuel will be transported via ship to the berth(s) in the Port of Ngqura and will be piped to the proposed tank farm. The proposed project will also entail the transfer of bulk liquids from the tank farm site to the berth(s) for export.

It is also important to note that, in line with the Port of Ngqura's future expansion plans, a new series of A-Berths will be constructed on the eastern side of the Port, and going up the Coega River channel. It is likely that the land-side infrastructure associated with this Bulk Liquid Storage and Handling Facility will be relocated to the new A-series Berths once they have been constructed. The impacts associated with the transfer of infrastructure from the existing Berth B100 to the proposed A-series Berths will also be assessed in this Environmental Impact Assessment (EIA).

Need for the Project

The Energy Security Master Plan (ESMP) for Liquid Fuels highlights the increase in demand for liquid fuels and the significance of security of supply to the economy of South Africa. The national ports' system plays a crucial

role in the provision of port infrastructure to allow liquid fuels to be imported into the country. However, there are currently limited opportunities at existing South African ports to expand bulk liquid handling and storage facilities. Based on the assessed growth in demand for liquid fuels, the Port of Ngqura currently provides an opportunity to create additional bulk liquid handling and storage infrastructure within the national ports' system. Further, such a facility at the Port of Ngqura will provide a necessary independent bulk liquid storage and handling service to the local market. As a result, the proposed project will ensure that the economy of South Africa is improved, by providing more efficient facilities of this nature, and that the fuel requirements within South Africa are secured. In addition, the proposed project will be a suitable alternative to the existing tank farm in the Port Elizabeth Harbour, which is planned to be decommissioned.

Project Description

As described below, the key components of the project include the construction of the tank farm, pipelines and the installation of infrastructure at the berth(s). The overall project will be developed in two phases.

In addition to the above, a phased construction approach will be adopted for the project. This phased approach will entail the initial construction of the inland components of the project, such as the tank farm, which will then be followed by the construction of the remaining project components such as the pipelines and berth infrastructure in a seaward direction.

- **Tank Farm**: The construction and operation of the tank farm will serve as an import distribution channel for the Eastern Cape and as an International Trading Hub for Southern Africa. The tank farm will be constructed on a portion of land in Zone 8 of the IDZ, which is owned by Transnet National Ports Authority (TNPA) and has been designated for the storage of bulk liquids. The tank farm will cover an area of approximately 20 hectares, and it will include the construction of storage tanks with a combined capacity of approximately 790 000 m^3 for both Phases 1 and 2 of the project. Phase 1 of the tank farm will accommodate the storage and handling of liquid hydrocarbon products currently being handled at the existing tank farm in the Port Elizabeth Harbour. Phase 1 will also include make and break-bulk operations. Phase 2 of the tank farm will include additional make and break-bulk operations and possibly the ability to rail liquid products to storage facilities around South Africa, as well as to load products onto vessels calling at the berth(s). It is planned that Phase 2 will commence upon the completion of Phase 1 in order to maximize the resources used during Phase 1. Three main types of storage tanks will be provided, which includes bulk liquid tanks, LPG tanks and additive tanks. The diesel additive tanks might be stored

underground depending on customers' requirements for exothermic cetane improver additives, whilst the LPG tanks will be semi-buried and the remaining tanks will be above-ground. A road tanker loading gantry will also be constructed within the tank farm site in order to facilitate the transfer of the bulk liquids from the tankers for distribution within the domestic market. At this stage, a rail tanker loading gantry is a possibility and the details of the location cannot be confirmed. The rail tanker loading gantry will be constructed only if the demand arises. The tank farm will be equipped with concrete bunding as a spill contingency measure, and recommendations from Buncefield will be taken into account in the design of the tank farm, where applicable.

- **Pipelines**: A maximum of eight pipelines are proposed for both phases of development. These pipelines will be installed from the tank farm to Berth B100 initially, and then most likely to the proposed A-series Berths once they have been constructed. Separate pipelines will be constructed for black products (which refer to residual products such as fuel oil and carbon black feedstock), white products (which refer to distillate products such as diesel and petrol) and LPG. Two pipeline routing options have been proposed for this project. The pipeline routing option from Berth B100 results in a crossing of the Coega River. This crossing will be above-ground, and will be achieved utilising a causeway to be provided by TNPA. However, should a situation arise whereby the pipeline cannot be routed above-ground, culverts or trenches will then be investigated and utilized as necessary. The pipeline routing option from the A-series Berths will not traverse the Coega River. OTGC intends to construct all pipelines above-ground to avoid excessive environmental disruption of the river banks and floodplain which can be caused by large-scale clearing, excavating and trenching operations for underground pipeline construction.

- **Berths**: At this stage, it is proposed that Berth B100 will be used as the bulk liquid berth for the project, with a probable relocation to the future A-series Berths once they have been constructed. This relocation will entail the transfer of the infrastructure from Berth B100 to the proposed A-series Berths. OTGC will operate the bulk liquid berth for operations relating to the tank farm, but not necessarily for all bulk liquid operations, and will also provide and install the infrastructure at the berth. The infrastructure at the berth for Phase 1 of the project includes marine loading arms, associated equipment such as valves and instrumentation, a pig launcher and receiver and an office block situated on the jetty. Phase 2 will include the construction of additional pipelines and marine loading arms either at B100 or at the A-series Berths. Separate marine loading arms will be fitted at the berth for white products, black products and LPG respectively. The berth will also be equipped with the necessary facilities in terms of safety requirements, such as fire fighting, pollution prevention and emergency shutdown.

Need for an EIA and Atmospheric Emissions Licence

In terms of the Environmental Impact Assessment Regulations promulgated under Chapter 5 of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) published in GN R543, 544, 545 and 546 on 18 June 2010 and enforced on 2 August 2010, a full Scoping and EIA process is required for the proposed project. The need for the full Scoping and EIA is triggered by, amongst others, the inclusion of the following activity listed in GN R545 (Listing Notice 2):

1. *"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 metres."*

Furthermore, the proposed project will result in the release of atmospheric emissions through its operations. Based on this, an Atmospheric Emissions Licence (AEL) is required for the proposed project in terms of the National Environment Management: Air Quality Act (Act 39 of 2004) (NEM: AQA). The proposed project is classified as a Category 2: Sub-category 2.2: Storage and Handling of Petroleum Products listed activity in terms of Section 21 of NEM: AQA. An application for an AEL will therefore be submitted to the Licensing Authority, which in this case is the Nelson Mandela Bay Municipality.

Purpose of the Scoping Report

The purpose of the Scoping Phase of the EIA is to identify issues which would require assessment during the EIA process, to inform stakeholders about the proposed development, to present an opportunity for public participation at an early stage in the process and to allow for a transparent and inclusive process. It is intended that the outcome of the Scoping Phase should provide sufficient information to enable the authorities to reach a decision regarding the scope of issues to be addressed in the EIA process. Accordingly, the objectives of this Scoping process are to:

- Identify and inform a broad range of stakeholders about the proposed development;
- Clarify the scope and nature of the proposed activities and the alternatives being considered;
- Conduct an open, participatory and transparent approach and facilitate the inclusion of stakeholder issues in the decision-making process;

- Identify and document the key issues to be addressed in the forthcoming Environmental Impact Reporting Phase of the EIA, through a process of broad-based consultation with stakeholders; and
- Ensure that there is due consideration of alternative options in regard to the proposed development, including the "No development" option.

The Final Scoping Report is being made available to all stakeholders for a 21-day review period. All comments must be sent directly to the Case Officer at DEDEAT, and copies must also be sent to Public Process Consultants by 19 July 2012.

Identification of Issues

The Final Scoping Report includes the issues identified to date from the Scoping process. The project and associated EIA process was advertised in two Provincial and Regional newspapers. Letters with personal notification regarding the EIA process were mailed to all pre-identified key stakeholders on the database, which at the time consisted of 111 I&APs. The I&AP register was updated during the Scoping Phase and at the time of producing this report, the database contained 155 registered I&APs. A synthesis of these issues is provided in the Issues and Responses Trail (Chapter 5), which includes an explanation of how the issues will be addressed through the EIA process.

In summary, the following key issues have been identified to date:

Potential Impacts on Vegetation, Fauna and Avifauna:

- Impacts of the pipeline routing on the viability of the Open Space System, fauna, avifauna and biologically sensitive areas.

Potential Marine Impacts:

- Impacts of spills on the marine environment and fauna.

Potential Air Quality Impacts:

- Cumulative impacts on air quality considering the proposed development together with other industries and facilities in the IDZ and Port of Ngqura.
- Impact of the pipeline construction and venting systems on the air quality in terms of vapour released into the atmosphere.
- Impact of dust and emissions, specifically relating to volatile organic compounds on the air quality.

- Impact of strict monitoring protocols and mitigation measures to reduce the air quality impacts.
- Specific details pertaining to the dispersion modelling.

Potential Accidents and Spill Impacts:

- Impact of accidents and spills in the Coega IDZ and in the Port of Ngqura, particularly on sensitive environments.
- Impact of fires and appropriate sourcing of water for fire-fighting purposes.
- Impact of tank overfill.
- Impact of insufficient capacity to deal with spillages.
- Impact of strict procedures, monitoring and contingency plans to assist during spills.

Potential Traffic and Access Impacts:

- Impact of increased road traffic in the IDZ and surrounding regions.

Potential Socio-economic Impacts:

- Contribution to boosting economic development in the region.
- Contribution to unlocking the re-development of the Port Elizabeth Harbour tank farm site subsequent to decommissioning.
- Contribution to job creation and prevention of job losses as a result of the relocation of the Port Elizabeth Harbour tank farm.

The draft Plan of Study for the EIA (Chapter 6) presents the approach to the forthcoming EIA phase. This includes the Terms of Reference for the various specialist studies that are proposed to address the issues raised, where necessary.

Glossary

AEL	Atmospheric Emissions Licence
API	American Petroleum Institute
ASME	American Society of Mechanical Engineers
BID	Background Information Document
BOOT	Build, Own, Operate, Transfer
CDC	Coega Development Corporation
CITES	Convention on Illegal Trade in Endangered Species
CSIR	Council for Scientific and Industrial Research
DEA	National Department of Environmental Affairs
DEDEA	Department of Economic Development and Environmental Affairs
DEDEAT	Department of Economic Development, Environmental Affairs, and Tourism
DSR	Draft Scoping Report
EAP	Environmental Assessment Practitioner
EAPSA	Environmental Assessment Practitioner for South Africa
ECDC	Eastern Cape Development Corporation
EIA	Environmental Impact Assessment
ELC	Environmental Liaison Committee
EMP	Environmental Management Plan
ERAP	Emergency Response Action Plan
ESMP	Energy Security Master Plan
FSR	Final Scoping Report
GGP	Gross Geographic Production
I&AP	Interested and Affected Party
IDP	Integrated Development Plan
IDZ	Industrial Development Zone
LPG	Liquefied Petroleum Gas
MIR	Maximum Individual Risk

NEM: AQA	National Environment Management: Air Quality Act (Act 39 of 2004)
NEMA	National Environmental Management Act (Act 107 of 1998)
NHRA	National Heritage Resources Act (Act 25 of 1999)
NMBM	Nelson Mandela Bay Municipality
OSMP	Open Space Management Plan
OTGC	Oiltanking Grindrod Calulo (Pty) LTD
PPC	Public Process Consultants
PPP	Public Participation Programme
PRDW	Prestedge, Retief, Dresner, Wijnberg
PSEIA	Plan of Study for EIA
RTG	Radar Tank Gauging
SANS	South African National Standards
SAMSA	South African Maritime Safety Authority
SDF	Spatial Development Framework
SEA	Strategic Environmental Assessment
SMME	Small-Medium and Micro-Enterprises
TAS	Terminal Automation System
TERU	Terrestrial Ecological Resource Unit
TNPA	Transnet National Ports Authority
ToR	Terms of Reference