

General Motors South Africa



Removal and replacement of dangerous goods storage tanks at General Motors South Africa, Port Elizabeth: Final Basic Assessment Report

J35349

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Acronyms

| | |
|------------------|--|
| BA | Basic Assessment |
| BAR | Basic Assessment Report |
| CBA | Critical Biodiversity Area |
| CHDM | Chris Hani District Municipality |
| CRR | Comments and Responses Report |
| DBAR | Draft Basic Assessment Report |
| DEDEAT | Department of Economic Development, Environmental Affairs and Tourism |
| DWS | Department of Water and Sanitation |
| EA | Environmental Authorisation |
| EAP | Environmental Assessment Practitioner |
| EC DEDEAT | Eastern Cape Department of Economic Development, Environmental Affairs and Tourism |
| ECO | Environmental Control Officer |
| EIA | Environmental Impact Assessment |
| EMPr | Environmental Management Programme |
| GIBB | GIBB (Pty) Ltd |
| GN | Government Notice |
| HDI | Historically Disadvantaged Individuals |
| HIA | Heritage Impact Assessment |
| I&APs | Interested and Affected Parties |
| IEM | Integrated Environmental Management |
| kℓ | Kilolitre |
| km | Kilometre |

| | |
|-------------|---|
| NEMA | National Environmental Management Act, 1998 (Act No. 107 of 1998) |
| NWA | National Water Act, 1998 (Act No. 36 of 1998) |
| PIA | Paleontological Impact Assessment |
| PPP | Public Participation Process |
| RoD | Record of Decision |
| WULA | Water Use License Application |

Executive Summary

1.1 Introduction

GIBB (Pty) Ltd (GIBB) has been appointed by General Motors South Africa (GMSA) to undertake an environmental application process for the proposed decommissioning of 4 x 23 000 litre underground storage tanks (UST) and installation of facilities and infrastructure for the new above ground storage and handling of dangerous goods in 3 x 23 000 litre tanks and 2 x 9000 litre tanks in port Elizabeth in the Eastern Cape Province.

As such, the proposed project requires Environmental Authorisation (EA) from the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (EC DEDEAT) prior to construction.

An Application for Environmental Authorisation by way of a Basic Assessment Process in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) as per the Environmental Impact Assessment (EIA) Regulations of 2014 was submitted to the EC DEDEAT on 29 April 2016. On 11 May 2016, the EC DEDEAT acknowledged receipt of the application form and issued the project with DEDEAT reference no: **ECm1/C/LN1/14/15-2016**.

The purpose of this Basic Assessment Report (BAR) is to provide all Interested and Affected Parties (I&APs) and relevant State Departments with an opportunity to comment and provide input into the process going forward. All comments received during the review and commenting phase will be incorporated into the BAR for consideration by the approving authority, EC DEDEAT.

This BAR therefore includes the following details:

- A description of the project, location of the study area and project motivation;
- Environmental Legislative Requirements
- Discussion of applicable alternatives;
- The public participation process;
- Assessment of impacts for the construction and operational phases; and
- The Environmental Assessment Practitioner's recommendations.

1.2 Project Description

GMSA propose to decommission 4 x 23 000 litre underground storage tanks (UST) and install facilities and infrastructure for the new above ground storage and handling of dangerous goods in 3 x 23 000 litre tanks and 2 x 9000 litre tanks (Refer to Table 1 below showing contents of the proposed tanks).

GMSA proposes to install the new storage facility within their Struandale Complex in Port Elizabeth. The site is currently a brownfields site considering its location within the industrial area.

Table 1: Showing the proposed tank capacities and contents.

| Tank Capacity (L) | Contents |
|-------------------|---------------------|
| 9000L | Clear coat thinners |
| 9000L | Recovered solvent |
| 23000L | Lakthin |
| 23000L | Base coat thinners |
| 23000L | Robot Flushing |

1.3 Location of the Study Area

The site is located within the General Motors South Africa Complex, in the Struandale Industrial Area, Port Elizabeth. Access to the site is off the R75 National Road to Uitenhage and from the North East, off Struanway.

1.4 Project Motivation

The current tanks at GMSA have reached their lifespan and require to be replaced by the installation of the new above ground storage tanks.

Prior to decommissioning, all tanks will be emptied of any residual liquid and cleaned where necessary. During this process potentially contaminated washings will be strictly contained and managed (processed through on site effluent plant or put into process), and stringent occupational health and safety protocols will be observed.

1.5 Relevant Environmental Legislation

1.5.1 EIA Regulations

In terms of NEMA and associated EIA Regulations, environmental authorisation must be obtained from the relevant decision-making authority, the EC DEDEAT. This must be done prior to the commencement of certain listed activities that may result in potential negative impacts on the environment. The proposed pipeline involves the following listed activities, as per Government Notice (GN) No. R. 983, 984 and 985:

Table 1: Listed Activities in terms of NEMA and the EIA Regulations

| Listed activity as described in GN R.983, 984 and 985 | Description of project activity |
|--|---|
| <p><i>R.983 Listing 1(14):</i></p> <p><i>"The development of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80</i></p> | <p>General Motors South Africa propose to install 3 x 23 000 litre tanks and 2 x 9 000 litre tanks on a small vacant piece of land within their Struandale Complex in Port Elizabeth. The total capacity of the tanks</p> |

| | |
|---|---|
| <i>cubic metres or more but not exceeding 500 cubic meters."</i> | will be approximately 87 000 litres which is equivalent to 87 cubic metres. |
| GN R.983 Listing 1(31): <i>"The decommissioning of existing facilities, structures or infrastructure for – (i) and development and related operation activity or activities listed in this Notices, Listing Notice 2 of 2014 or Listing Notice 3 of 2014."</i> | The existing 4 x 23 000 litre underground tanks will be decommissioned. |

1.6 Project Alternatives

To give effect to the principles of NEMA and Integrated Environmental Management (IEM), an EIA should assess a number of reasonable and feasible alternatives that may achieve the same end result as that of the preferred project alternative.

For the purposes of this report, only the preferred alternative has been assessed in detail, since the proposed project is for the decommissioning and replacement of old tanks, other alternatives are not considered. For the purpose of this project, route alternatives are not applicable as this is not a linear activity.

However, the no-go alternative/ option was considered, as it provides the baseline against which the impacts of the preferred alternative can be compared.

1.6.1 No- Go Option

Without an option to address the current problems with the existing USTs the potential for leaks and subsurface contamination, as well as occupational safety hazards i.e. tank collapse and ground subsidence will continue to persist.

The decommissioning of the USTs will effectively mitigate any residual risks in terms of potential pollution and/or occupational safety issues, which could theoretically result in impacts on local communities.

The no go option is therefore not further assessed.

1.7 Summary of Key Impacts

Key:

| Significance | |
|--------------|----------------------|
| -49 to -66 | Very high - negative |
| -37 to -48 | High - negative |
| -25 to -36 | Moderate - negative |
| -13 to -24 | Low - negative |
| 0 to -12 | Very low - negative |
| 0 to 12 | Very Low - positive |
| 12 to 24 | Low - positive |
| 25 to 36 | Moderate - positive |
| 37 to 48 | High - positive |
| 49 to 66 | Very high - positive |

| Impact | Pre-mitigation: | Post-mitigation: |
|--|-------------------|-------------------|
| | Significance | Significance |
| CONSTRUCTION PHASE | | |
| Direct Impacts | | |
| Contamination/Pollution of groundwater from leaks/spillages from hydrocarbons | Low Negative | Very Low Negative |
| Noise impact as a result of the use of construction machinery on site and within the residential areas | Very Low Negative | Very Low Negative |
| Increased job opportunities for unskilled labour | Low Positive | Moderate Positive |
| Indirect impacts | | |
| Impact of improper waste management on site | Very Low Negative | Very Low Negative |
| Cumulative Impacts | | |
| Increase in alien invasive vegetation | Low Negative | Low Negative |
| OPERATION PHASE | | |
| Direct Impacts | | |
| Contamination/Pollution of groundwater from leaks/spillages from hydrocarbons | High Negative | Low Negative |
| Contamination/Pollution of soil from leaks/spillages from hydrocarbons | High Negative | Low Negative |
| Increased emissions as a result of storing dangerous goods | Low Negative | Very Low Negative |
| Indirect impacts | | |
| Impact to Health and Safety as a result of fire risk | High Negative | Low Negative |
| Cumulative Impacts | | |
| None | | |
| DECOMMISSIONING PHASE | | |
| Direct Impacts | | |
| Contamination/Pollution of groundwater from leaks/spillages from hydrocarbons | High Negative | Low Negative |
| Increased dust emissions as a result of construction machinery moving material to and from the site | Very Low Negative | Very Low Negative |
| Increased job opportunities for unskilled labour | Low Positive | Moderate Positive |
| Indirect impacts | | |

| | | |
|---|-------------------|-------------------|
| Impact of improper waste management on site | Very Low Negative | Very Low Negative |
| Cumulative impacts | | |
| Impact of improper handling of the UST Tanks removal. | Low Negative | Very Low Negative |

1.8 Public Participation

The principles of NEMA govern many aspects of the Basic Assessment (BA) process, including consultation with I&APs. These principles include the provision of sufficient and transparent information to I&APs on an ongoing basis, to allow them to comment; and ensuring the participation of Historically Disadvantaged Individuals (HDI), including women, the disabled and the youth. The principal objective of public participation is thus to inform and enrich decision-making.

A period of 30 calendar days (**27 June 2016– 26 July 2016**) has been provided to the State Departments and registered Interested and Affected Parties (I&APs) for the review and commenting phase of the Draft Basic Assessment Report (DBAR). All I&APs as well as State Departments have been notified of this review period.

GIBB conducted a Public Participation Process (PPP) with the following key features and associated milestones:

1.8.1 Interested and Affected Parties Database

An Interested and Affected Parties (I&APs) Register/ Database was initiated and progressively populated as I&APs were identified or registered.

I&APs representing the following sectors of society were identified (see **Appendix E1** for a complete preliminary I&AP distribution list):

- National Departments;
- Provincial Authorities;
- Local Authorities;
- Ward Councillors;
- Parastatal/ Service Providers;
- Non-governmental Organisations;
- Local forums/ unions; and
- Landowners directly affected by the project and in the vicinity of the proposed construction areas.

1.8.2 Public Announcement of the Project

I&APs were informed of the project and were requested to register and send their comments to GIBB in the following manner (see **Appendix E** for public announcement documentation):

- Publication of media advertisements in English in the EC Herald on **27 June 2016**.

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- On-site notices (in English) detailing the proposed development, the BA process and invitation to register and comment, were placed on and around the site on **27 June 2016**.
 - Distribution of letters by fax/ by post/ email to the I&APs on **27 June 2016**.

1.8.3 Site Notices

Site notices in English were placed at strategic places to inform the public about the proposed development and the processes to be followed if they wanted to be part of the Environmental Authorisation (EA) process or if they wanted further technical information (see **Appendix E3** for the site notice text and the photographic proof of placements).

1.8.4 Newspaper Advertisements

Newspaper adverts were compiled to inform readers of the application to the EC DEDEAT and to invite I&APs to register and/or provide comment.

An English newspaper advert was placed in the legal notices column of the EC Herald on **27 June 2016**, informing the readers of the proposed development, and details of methods to participate should they wish to register as I&APs or comment on the project.

Refer to the English and Xhosa newspaper advertisement texts and the proof of publication in **Appendix E2**.

1.8.5 Basic Assessment Report for Public Review

No comments and concerns were raised by I&APs during the registration and comment period (i.e. **27 June 2016 – 26 July 2016**).

1.9 Conclusions and Recommendations

The proposed project will provide infrastructure for the storage of dangerous goods at the GMSA industrial automotive complex. As part of the automotive industry, it is a standard industrial practice to remove and appropriately decommission redundant industrial infrastructure particularly USTs that are not functioning efficiently.

The proposed installation of the new above ground storage tanks will effectively mitigate any residual risks in terms of potential pollution and/or occupational safety issues.

This assessment illustrates that there are various potential negative and positive impacts that may result from the proposed project. From an environmental perspective and with the consideration of the potential impacts, GIBB is of the view that the preferred alternative A1 and S1 will result in impacts which are low and which can suitably be mitigated to a low and very low significance. It is the opinion of the Environmental Assessment Practitioner (EAP) that should the project proceed, impacts on the receiving natural areas can be minimised through the careful adherence to suggested mitigation measures.

Having assessed all the potential environmental impacts associated with the proposed development, it is the opinion of the EAP that the project is issued with a positive Environmental Authorisation from EC DEDEAT for the following reasons:

- A project-specific Draft Environmental Management Programme (EMPr) has been compiled according to (but not limited to) the impacts and mitigation measures included in this assessment. A more detailed EMPr must be submitted prior to the tender stage, including conditions of the EA to the EC DEDEAT for approval.
- The need and desirability of the project is driven by the fact that residual risks in terms of potential pollution and/or occupational safety issues will be addressed through the decommissioning of the USTs and installation of above ground storage tanks.
- The proposed development will also contribute to provide various employment opportunities to the local people during the construction phase.
- The EMPr is a legally binding document and the mitigation measures stipulated within the document and Basic Assessment Report will be implemented by the appointed contractor;
- An independent Environmental Control Officer (ECO) will need to be appointed to manage the implementation of the EMPr during the construction phase.