EXECUTIVE SUMMARY OF THE BASIC ASSESSMENT REPORT:

Introduction

Kaap Agri (Pty) Ltd (hereafter referred to as "Kaap Agri") has an existing silo facility, called the Wesgraan – Klipheuwel Silo, currently storing large volumes of oats, wheat, maize, canola, and grain. Grain harvested by farmers are sold to Kaap Agri which are subsequently stored at Wesgraan – Klipheuwel Silo facility prior to being transported to the mills for processing.

An existing diesel depot, comprised of 2 x 23m^3 aboveground storage tanks (ASTs), with a total storage capacity of 46m^3, are located at the Wesgraan Klipheuwel Silo Facility. Kaap Agri propose to expand their existing diesel depot by an additional 5 x 83m^3 ASTs (and associated infrastructure) to increase the existing fuel storage capacity by 415m^3 to have a total, combined storage capacity of 461m^3. This facility is located on Portion 17 of Farm Vryheid, Farm No. 55, Klipheuwel, Western Cape.

Figure 1: Location of the proposed site for development (Portion 17 of the Farm Vryheid No 55, Klipheuwel).

Summary of Proposed Development

Please refer to **Annexure B1** for the proposed **Site Layout Plan (Option 1)**.

The site currently has two 23m^3 capacity storage tanks. The proposed application is to expand the existing fuel storage capacity by an additional five (5) horizontal 83m^3 capacity tanks. It is therefore proposed to expand the current facility (46m^3) by an additional 415m^3, to have a total combined capacity of 461m^3.

Kaap Agri Klipheuwel diesel depot proposes to provide bulk storage for fuel to supply farmers in the area by a fleet of Kaap Agri road tankers.

Access to/from the site is proposed from the existing Minor Road 60 intersection with MR188 (Klipheuwel Road) and subsequently via three gates along the western boundary of the site fronting Minor Road 60. The northern gate is ingress only, while the middle and southern gates are egress only.

The applicant proposes to construct a bulk fuel storage depot on site. This bulk fuel depot will include 5 x 83m^3 ASTs and associated infrastructure. The five (5) x 83m^3 capacity above ground, horizontal, diesel storage tanks, are proposed to be located within a single bunded area. Fuel deliveries will occur on a concrete surfaced area (spill slab) which will be sloped to a containment pit for spillage containment. Fuel dispensing to Kaap Agri road tanks will take place on a separate spill containment slab.

In summary, the following is proposed:

- 5 x 83m^3 above ground diesel storage tanks and associated infrastructure;
- Bund retaining wall;
- Separate loading and offloading points on spill containment slabs;
- Brick paved roadways; and
- Raised islands (to prevent access via truck).

The proposed development footprint will be located within a previously transformed/ highly disturbed area (i.e., Portion 17, Farm Vryheid, Farm No. 55, Klipheuwel) with the following development footprints:

The total development footprint will be approximately 2391m^2 and will be comprised of:

- 5 x 83m^3 above ground tanks and associated infrastructure = ~430m^2
- 2 x spill containment slabs = ~190m^2
- Proposed brick paved roads = ~1429m^2
- New raised island = ~ 342m^2

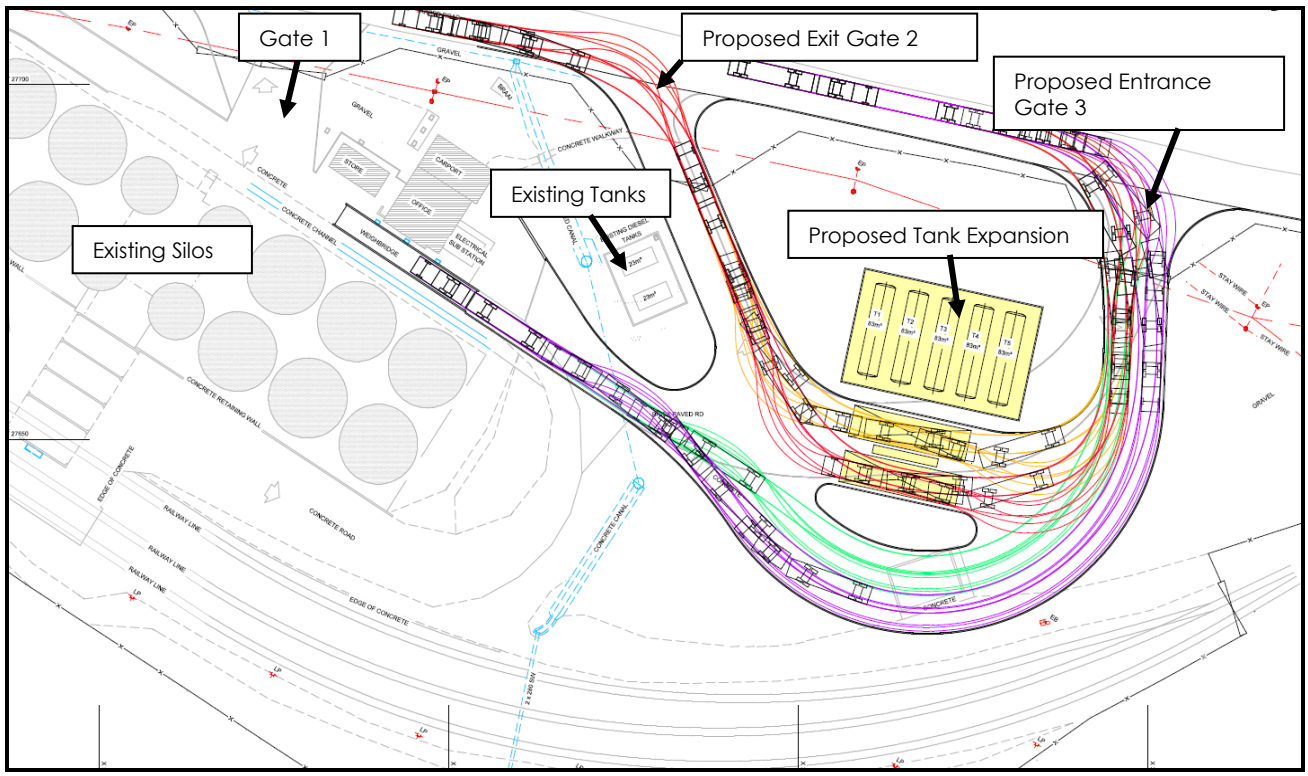

Figure 2: *Proposed Site Layout Plan*

Legislative Context

The proposed expansion of the existing diesel fuel depot triggers the following activity, which is listed in terms of 2014 EIA Regulations, as amended, published under the National Environmental Management Act, Act No. 107 of 1998 (NEMA), and therefore requires an application for Environmental Authorisation:

Table 1: *Listed Activities in the 2014 EIA Regulations, as amended.*

Listed Activity	Reason for Listing
Listing Notice 1, Activity 51: *The expansion of facilities for the storage, or for the storage and handling, of a dangerous good, where the capacity of such storage facility will be expanded by more than 80 cubic meters.*	The capacity of the storage facility is proposed to expand by 415 cubic meters (5 x 83m^3).

Planning Context

With reference to **Appendix E21 (Existing Land Use Rights and Zoning Map**), a portion of the site has been spot-zoned for General Industry.

The current site is zoned for Agriculture with a spot-zoning for General Industry 1. This includes the silos, existing fuel tanks and offices.

As per **Appendix E21,** an application was made to the CoCT to expand the existing above ground 43m^3 diesel storage capacity by an additional 43m^3 storage capacity (namely the installation of underground storage tanks). This expansion was allowed for at the time under the General Industry 1 zoning and would have allowed for a total of 92m^3 of diesel storage. The expansion to include the fuel service station however did not take place. It is therefore only the existing 43m^3 of above ground tanks that remain.

Specialist Assessment Key Findings

1. **Traffic Impact Statement (Appendix G1)**

- Main Road 188 (Klipheuwel Road) is not operating at full operating capacity and is typical of commuter traffic travel patterns;
- Based on 2019 RNIS data, Main Road 188 carries approximately 6000 vehicles/day and approximately 600 vehicles during peak hours (morning/evening);
- It is envisaged that the proposed expansion project will increase truck traffic by:
    - ±10 trucks in/day
    - ±10 trucks out/day
    - No more than ±2 trucks in/out during peak traffic times
    - This was stated to be insignificant and does not warrant a detailed traffic analysis
- Two site layout options (Option 1 and Option 2) were proposed by the Specialist where both Options have similar traffic impact ratings. However, Option 1 is preferred as it provides for slightly more stacking (i.e., minimizes potential for conflict with the fuel depot operations). Both Options can be supported;

- Based on these findings, the Specialist recommended that the proposed expansion be supported as the traffic impact was rated as Low.

2. Major Hazard Installation Risk Assessment (Appendix G2)

- Fifteen (15) hazard scenarios were analyzed.
- Based on the risk assessment, the facility is not classified as a Major Hazardous Installation – as a major incident at the site would not impact members of the public outside of the property boundaries;
- There are no developing conflicts for this site;
- The Specialist stated, to the best of their knowledge, that no major hazard installation is within reach of the worst-case major incident that can occur at this site.
- New developments, situated around the site, may take place.

3. Emergency Response Plan (Appendix G3)

- As per the Emergency Response Plan (ERP), numerous activity hazards and risks were identified and rated.
- Control measures were proposed where the residual risk rating was rated as "Low" and "Medium" for identified activities should control measures be implemented.
- Please refer to ERP for more information on control measures.

4. Noise Impact Assessment (NIA) and Management Plan (Appendix G4)

- Daytime rating level of noise emitted from existing operations was lower than typical rating level for noise for an industrial district. The applicant is therefore compliant with Regulation 4 of the Western Cape Noise Control Regulations, 2013 (NCR). No noise mitigation measures are required;
- During operation, the proposed addition of ASTs will have a negligible intensity of noise impact in terms of SANS 10103:2008. The proposed expansion will therefore be compliant with Regulation 4 of the NCR. No noise mitigation measures are required; and
- During the construction phase, noise mitigation measures as per the Noise Management Plan (Section 5 of the NIA, Appendix G4), must be complied with.

5.Dust Management Plan (DMP) (Appendix G5)

- The City of Cape Town requested that a Dust Management Plan be submitted to the City's Air Quality Management Unit in terms Section 26 of the City of Cape Town Air Quality Management By-law (August 2016).
- Construction activities, namely bulk earthworks, construction of access road and the ASTs, and associated activities, were identified as potential dust-generating activities. Mitigation measures were added to the existing dust control measures currently implemented by Kaap-Agri.
- Kaap Agri must provide an implementation progress report to the air quality officer at agreed time intervals. The DMP must be assessed on an annual basis, as required for specific dust control measures, or should any complaint or incident occur which results in high dust emissions.

6.Stormwater Management Plan (SWMP) (Appendix G6)

- The SWMP includes existing and proposed open stormwater channels and proposed detention ponds.
- Two detention ponds (total approximate storage capacity of 53m^3) are proposed. This will address CoCT's following comments in the following ways:
    - Additional runoff generated (by stormwater events of up to 1 in 50 years) by the proposed expansion will be attenuated to pre-development levels; and

    - Stormwater runoff must be polished and treated to appropriate levels of phosphorous and total suspended solids. The two detention ponds will retain the stormwater runoff of a 1 in ½ year, 24hr storm event that will slowly filter through the bottom of the pond to subsurface pipes.
    - An emergency overflow will discharge any additional stormwater runoff from the pond in the unlikely event of a 1 in 100-year storm event.
    - Maintenance must be undertaken as per the proposed maintenance schedule (Table 4.3 of the SWMP) in order to ensure optimal operation of the detention ponds and associated stormwater infrastructure.
- The Engineers support this environmental application based on the (1) construction of the detention ponds which will enable sufficient stormwater drainage and flood attenuation, and (2) the maintenance of the detention ponds as per the proposed schedule (Table 4.3 of the SWMP).

Public Participation

A key component of the Basic Assessment process is public participation. Public participation allows identified Interested and Affected Parties (I&AP's) to assist in identifying issues or concerns around the activity which may need further investigation or assessment.

Summary of public participation undertaken during the initial and pre-application public participation process, as is required in terms of the 2014 EIA Regulations (regulation 41 – 44 in Chapter 6 of GN386):

- A register of potential interested & affected parties was opened.
- All surrounding neighbours with formalized erven with postal addresses were notified via letters (sent via the postal system). The adjacent landowners and / or occupiers were therefore notified via letters of the availability of the Pre-Application Draft Basic Assessment (hardcopy and electronic copy) during the two respective 30-day commenting periods.
- Organs of State; the local ward councillor, local municipality, and civic representative bodies (such as ratepayers' associations) were notified by email and/ or post.
- An advertisement was published in the Tygerburger (local newspaper) in English on the 3rd February 2021.
- A site notice was erected at a place visible near the proposed entrance to the Klipheuwel fuel depot.
- The Pre-Application DBAR was sent to Organs of State in electronic format via a Cloud Based service and/or via email.
- The reports were made available on the SEC website (www.environmentalconsultants.co.za) for review and comment for a period of 30 days during the pre-application consultation phase (on the Pre-Application Draft BAR). The Post-Application DBAR will be made available for a period of 30 days during the post-application consultation phase.
- Following the initial 30 days public consultation phase and the second 30-day PPP period on the pre-application Draft BAR, the I&AP Register has been updated with all those who provided comments on the Pre-Application BAR.

Following the initial 30 days public consultation, and the second 30-day PP period on the Pre-Application Draft BAR, a Comments & Response Table, summarising all comments received during the Initial and Pre-Application DBAR phase, as well as SEC's response to the comments received, has been appended to the Post-Application DBAR.

Summary of <u>additional measures</u> that will be implemented to ensure all I&APs are notified of the availability of the BAR applications, and the opportunity to participate:

- A link to access the Post-Application DBAR will be made available to all Registered I&APs. Registered I&APs will be given a 30-day comment period.

- The Post-Application Draft BAR will be made available on the SEC website. The executive summary will also be uploaded as a data saving alternative.
- The Post-Application DBAR will be made available in a hardcopy format at the Sisonke Sibambisene ECD centre located at the Klipheuwel Community Church.
- Additional arrangements have been made with Ruan Beneke (Councillor – Ward 105) and Lynette Dalasile (Klipheuwel Leadership Group – Chairperson). Sillito will provide Lynette Dalasile with a hardcopy copy of the Post-Application Draft BAR when they become available for public and authority comment.

Alternatives Investigations

The NEMA EIA Regulations, 2014, as amended, require that an Applicant identify and investigate alternative "means of meeting the general purposes and requirements of the activity" for which authorisation is being applied for.

Site Alternatives:

No site alternatives have been investigated as the proposed site for the expansion of an existing diesel depot with sufficient resources and space available for the proposed installation of five new 83m^3 diesel tanks and associated infrastructure. The site is already zoned for industrial use. It is therefore not reasonable to identify or assess site alternatives as this is an expansion activity not a new activity.

Layout Alternatives:

The proposed development is to construct an additional five (5) Aboveground Diesel Storage Tanks (ASTs) north of the two (2) existing ASTs on site.

The existing access, stacking and circulation of grain trucks to/from the silos were taken into account when developing the two options, i.e. **Proposed Site Layout Plan Option 1** (See attached as **Appendix B1**) and **Proposed Site Layout Plan Option 2**, for the proposed bulk fuel depot. The key operational concern is for two grain trucks to be able to move around the outer edge of the site as this would allow trucks to stack in two queues in the peak harvest time.

Both options can accommodate two grain trucks side by side (without overlapping) from the entry gate to when they start to merge about 35 m prior to the weighbridge. The fuel delivery and despatch trucks have two slabs and the initial path from the gate indicates that the fuel trucks will "share" the inner lane of the grain route before splitting off to the right to align with the slabs. The trucks to and from the proposed new fuel depot will therefore have a negligible impact on the existing grain operation on site. It should also be noted that as part of both options, the existing gates will also be widened making entry and exit easier.

In **Option 1** the tanks are located approximately 17 m away from the fence and as far away from the residential community as possible.

In **Option 2** the aim is to reduce the amount of construction by moving the path that the grain trucks follow further away from the railway line siding. This necessitates that the tanks are also moved closer to the road. As there is an electrical power line that runs between the road and the tanks this was used as a guide in limiting the shift of the tanks towards the road.

While the construction area of **Option 1** is greater it is still preferred operationally as it provides slightly more stacking and thereby minimises the potential for conflict with the fuel depot operations.

NO-GO Alternative:

The No-Go alternative entails maintaining the existing state of the site and to operate the depot in its current form. Negative impacts associated with the No-Go alternative include lack of temporary and permanent job opportunities, the additional profit opportunity cost lost for Kaap Agri (Pty) Ltd and the opportunity cost lost to supply diesel to the farmers. The NO-GO alternative would result in the existing facility being unable to provide for the projected future diesel demand in the area.

Identification & Assessment of Impacts

The proposed expansion entails the construction and operation of five 83m^3 additional fuel storage tanks and associated infrastructure. The potentially significant impacts identified as being associated with the depot are as follows:

Construction phase:

- **Soil & Groundwater Contamination & Pollution:** Fuel, oil, lubricants, and other pollutants may leak from vehicles/ machinery and contaminate the soil. Pollution and soil contamination could also occur from chemical toilets, cement mixing directly on the soil and stormwater runoff may flow over the site camp area and carry contaminants off-site.

- **Fire, Health & Safety Risk:** Exposure through breathing vapours, swallowing hazardous substances or skin contact may have possible health effects. There is a minor risk of a diesel pool fire and toxic combustion gases if an incident occurs at the existing facility while construction takes place for the upgrade.

- **Dust & Noise Impacts:** As a result of the construction phase of this development noise and dust impacts are expected to occur in the area due to an increase in construction vehicles and road tankers for the duration of the construction phase while materials are being transported to the site and excavations are being made.

- **Traffic, Safety and Access Impacts:** As a result of the construction phase of this development traffic impacts are expected to occur in the area due to an increase in construction vehicle and truck traffic in the area for the duration of the construction phase while materials are being transported to the site. Road safety impacts and road condition impacts could also occur.

- **Visual Impacts:** The construction phase is associated with temporary disturbance as a result of construction (trench excavations, vehicles, machinery, fencing & signage) that may have a negative visual impact on the public.

- **Socio-economic – Creation of employment opportunities:** Temporary employment opportunities will be provided during the construction phase to those residing in the geographical area.

Operational phase:

- **Soil & Groundwater Contamination & Pollution:** During the operational phase of the proposed development soil and groundwater contamination could result due to fuel spills associated with re-filling of the above ground storage tanks. In addition, if stormwater is not managed correctly there is the potential for the unmanaged stormwater runoff to impact negatively on the

environment, potentially causing pollution and contamination. The aboveground fuel storage tanks could leak and contaminate the soil and groundwater.

- **Traffic & Safety Impacts:** Traffic impacts are expected to occur for the duration of the operational phase of the activity as a result of the additional vehicles making use of the fuel depot. This could lead to safety impacts or damage to road infrastructure.

- **Fire, Health & Safety Impact:** Exposure through breathing vapours, swallowing hazardous substances or skin contact may have possible health effects. The hazardous events identified by the MHI Risk Assessment that could occur at the facility could be an uncontrolled leak of diesel at the depot from a bulk storage tank or an uncontrolled leak of diesel from the delivery road tanker. As a result of the hazardous events, the identified potential major incidents could be a diesel pool fire at the storage tanks or the delivery road tanker and toxic effect of diesel combustion gases in case of a pool fire at the storage tanks. The most critical effect that a major incident at the facility could have is a pool fire inside the common bund of the storage tanks.

- **Air Quality Impact:** Fuel vapour emissions may cause an odour nuisance or health impacts to adjacent residents, staff on site or to users of the fuel depot.

- **Visual Impact:** The visibility of the fuel storage tanks from prominent viewpoints and receptors.

- **Socio Economic Benefit:** Creation of new permanent job opportunities.

- **Socio Economic Benefit:** Supply of diesel fuel to farmers and additional income opportunity for Kaap Agri as they can meet the demand.

The EAP has assessed the impacts associated with the fuel depot to be as follows, after mitigation:

Table 2: *Summary Tables of Construction & Operation Phase Impact Significance,* ***After Mitigation***

CONSTRUCTION PHASE IMPACTS & BENEFITS	
IMPACT	**IMPACT SIGNIFICANCE AFTER MITIGATION**
Soil & Groundwater Contamination & Pollution	Low (-)
Visual Impact	Low (-)
Dust & Noise Impact	Low (-)
Fire, Health and Safety Risk	Low - Medium (-)
Traffic, Safety and Access	Low (-)
Socio-economic – creation of temporary employment opportunities	Low – Medium (+)
OPERATION PHASE IMPACTS	
IMPACT	**IMPACT SIGNIFICANCE AFTER MITIGATION**
Soil & Groundwater Contamination & Pollution	Low - Medium (-)
Fire, Health and Safety Risk	Low - Medium (-)
Air Quality: Fuel Vapour Emissions	Low (-)

Traffic & Safety	Low (-)
Visual Impact	Low (-)
Socio-economic benefit – creation of permanent employment opportunities	Low – Medium (+)
Socio-economic benefit – fuel supply to farmers and income opportunity	Medium (+)

The Basic Assessment has determined that none of these associated impacts have been found to be of an unacceptable level; all of these impacts can either be avoided or minimised to an acceptable level of risk, provided that the mitigation measures recommended in the EMPr are followed and complied with.

Conclusions & Recommendations by the EAP

Findings from the investigation and assessment of the proposed site for development (Portion 17 of the Farm Vryheid No. 55, Klipheuwel) showed that the proposed site is a suitable location to provide additional fuel storage and supply services. This is based on the insignificant biodiversity impacts associated with the proposed expansion, due to the previous transformation of the entire site proposed for development. Moreover, no water resources are present on or adjacent to the site, no cultural or heritage impacts are expected to occur within the proposed site for development. The site is completely transformed, is within the Klipheuwel Urban Edge, aligns with the property's existing land use rights (General Industry) and is zoned for General industrial use in the Spatial Development Framework.

The most significant impact of the development proposal is the potential health and safety risk. The MHI Risk Assessment found that a major incident at the existing plant (pool fire inside common bund) will not impact on people outside the boundaries of the depot, especially towards future developments around the site. The proposed AST installation on the premises does not comprise an MHI. The diesel delivery tankers constitute a MHI because a pool fire caused by the road tanker on site or a pool fire in the proposed new retaining bund could impact the public outside the boundaries of the site. However, the risk is lower than when the fuel tankers are driving on the roads due to potential collisions with vehicles. The MHI Assessment found that the proposed expansion of the site is expected to have a low societal risk as there are no MHI within reach of the worst-case major incident that can occur at this site.

The MHI Risk Assessment concluded that even if future developments around the site take place, the health & safety risk is expected to be low as risk is a measure of the likelihood of an event and the consequence of an event. With the proposed mitigation measures implemented, the likelihood of an event occurring is exponentially low, resulting in the level of risk expected to be low.

In terms of benefits, the depot expansion will provide short- and long-term job opportunities to the community during the construction and operation phases, an income stream for the applicant, as well as additional provision of fuel supply services which are required by farmers in the area.

Given the low significance of the impacts assessed, as well as the likelihood of an incident occurring to be very low, the socio-economic benefit of this project should be realised and the EAP recommends that the proposed site be developed. Measures as stipulated in the EMP (**Appendix H**) must be implemented and complied with. The implementation of the design, construction and operational phase measures contained in the EMPr in **Appendix H**, will maximize the benefits and avoid/ minimize any environmental risks associated with the proposed expansion. It is of particular importance to manage the health and safety risk associated with a potential pool fire and/or exposure to hazardous liquids (diesel fuel) and fuel vapours.

There is thus adequate motivation for the Kaap Agri (Pty) Ltd fuel depot expansion to proceed under the following recommended conditions of approval:

- The mitigation measures listed in the EMPr must be strictly implemented and complied with.
- Two mobile foam pourers of 100 kg should each be placed on the northern and southern sides of the diesel depot.
- The tanks must be installed according to the following SANS:
    - *SANS 10131(2004): Above-ground storage tanks for petroleum products.*
    - *SANS 10 400TT (Fire Protection) 53 Sections 1-6 (The application of the National Building Regulations-Installation of Liquid Fuel Dispensing Pumps and Tanks)*.
    - *SANS 10087-3 (2008) (English): The handling, storage, distribution and maintenance of liquefied petroleum gas in domestic, commercial, and industrial installations Part 3: Liquefied petroleum gas installations involving storage vessels of individual water capacity exceeding 500 L.*
- The following plans & procedures must be produced prior to construction taking place (as per design phase requirements listed in the EMPr):
    - Stormwater Management Plan (refer to **Appendix G6**).
    - Spill Contingency Plan.
    - Fire Plan.
    - Update Emergency Response Plan.
    - Update Preventative Maintenance Plans.
- The installation of the ASTs and associated infrastructure (e.g., pipework) must comply with the National Building Regulations and Standards Act No. 103 of 1977.
- The installation of the ASTs and associated infrastructure must comply with local authority bylaws and all procedures and equipment used must be in accordance with the Occupational Health & Safety Act (No. 85 of 1993).
- Upon completion of the UST installation, an engineer is to inspect and verify that the tanks and the associated infrastructure have been installed as per the design criteria described in the Final BAR and in accordance with all required SABS / SANS standards and applicable legislation.
- Substantial on-site road works to provide sufficient stacking for, and circulation through the site by the fuel tankers and grain trucks. The grain trucks and fuel tankers' tracking are separated once they enter the site.
- The tank farm is located as far from the community on the opposite side of the access road as possible.

The implementation of the design, construction, and operational phase measures contained in the EMPr in **Appendix H**, must be implemented and complied with.

There is thus adequate motivation for the proposed expansion of the fuel depot to proceed.