

# Makoya Supply Chain Holdings (Pty) Ltd

## DRAFT BASIC ASSESSMENT REPORT FOR BLINKPAN SIDING AIR EMISSIONS, MPUMALANGA PROVINCE

Submitted to:

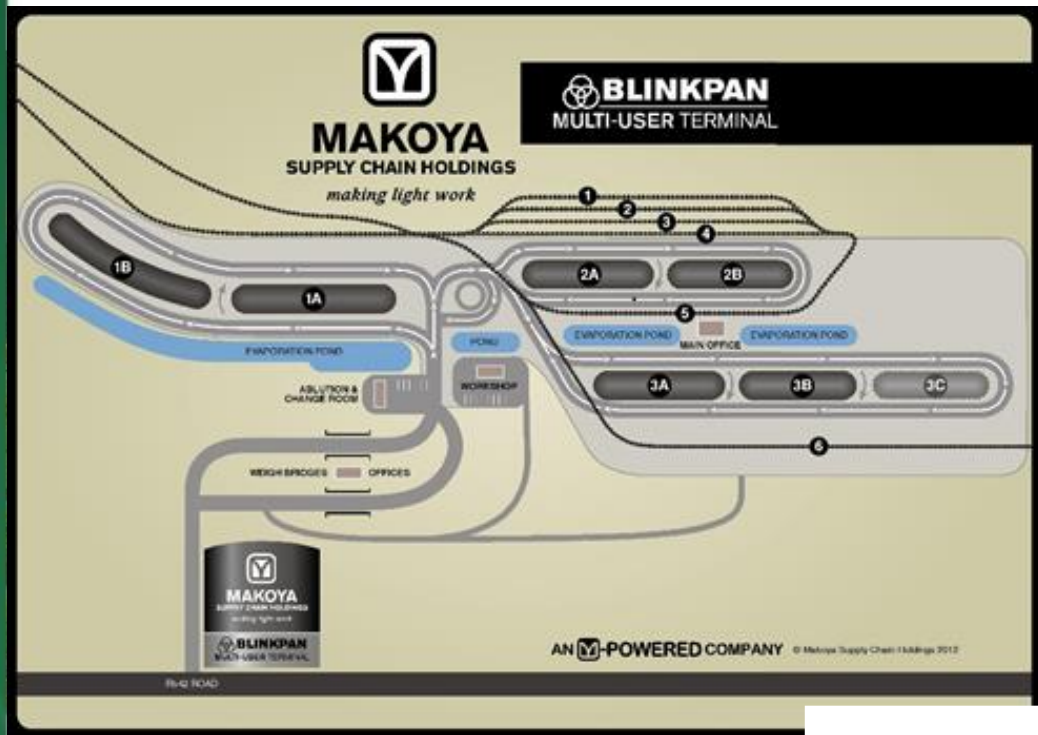
Mpumalanga Department of Economic Development, Environment and Tourism

Attention: Ms Okwethu-Kuhle Fakude (Case Officer)

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REPORT

Report Number:

NEMA BA-REP-024/13\_14

Revision:

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Makoya Supply Chain Holdings (Pty) Ltd

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# EXECUTIVE SUMMARY

## 1. Introduction and Project Description

Environmental Assurance was appointed by Makoya Supply Chain Holdings (Pty) Ltd to apply for Environmental Authorisation for the proposed increase in coal stored at the Blinkpan Railway Siding, located in Blinkpan, Mpumalanga Province. The application is being made in terms of the National Environmental Management Act, Act No. 107 of 1998 (as amended) [NEMA] and the Environmental Impact Assessment Regulations (2010) (as amended and corrected) [EIA Regulations].

The Competent Authority is the Mpumalanga Department of Economic Development, Environment and Tourism and the application is required since the proposed development triggers activities which are listed in terms of the NEMA EIA Regulations.

Environmental Assurance (Pty) Ltd has been appointed by Makoya Supply Chain Holdings (Pty) Ltd to complete the Basic Assessment Process for the following development proposal:

Up to now Blinkpan has not been storing coal in quantities of more than 100 000 tonnes at a time, but does have the capacity to store and handle more than 100 000 tonnes. It is the intention of the applicant to increase the amount of coal stored and handled to above 100 000 tonnes. In terms of Section 21 of the National Environmental Management: Air Quality Act (Act. No. 39 of 2004) [NEM: AQA], Regulation 14, Category 5 (1) Subcategory 5.1: Storage and Handling of ore and coal, an atmospheric emissions license need to be applied for, for storage and handling of more than 100 000 tonnes of coal. In turn triggering the listed activity in terms of NEMA and the EIA Regulations.

## 2. Legislative Requirements

### ***NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO. 107 OF 1998) (AS AMENDED) AND THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS OF 2010:***

The National Environmental Management Act, Act 107 of 1998 (as amended) [NEMA] strives to regulate national environmental management policy and is focussed primarily on co-operative governance, public participation and sustainable development. NEMA makes provisions for co-operative environmental governance by establishing principles for decision making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by Organs of State and to provide for matters connected therewith.

The proposed construction and operational activities associated with the technical training college development falls within the ambit of the scheduled activities listed in Government Notice (GN) No. 544 and therefore requires compliance with the EIA Regulations of 2010, promulgated in terms of the National Environmental Management Act, Act 107 of 1998 (as amended). The proposed activity requires a Basic Assessment process as listed activity 2 under Government Notice No R. 544 are triggered.

## **NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (ACT NO. 39 OF 2004):**

In terms of Section 21 of the National Environmental Management Act: Air Quality Act (Act. No. 39 of 2004) [NEM: AQA), Regulation 14, Category 5 (1) Subcategory 5.1: Storage and handling of ore and coal, an atmospheric emissions license need to be applied for, for storage and handling of more than 100 000 tonnes of coal.

## **OTHER LEGISLATION**

The requirements of the following legislation have also been considered in this Application for Environmental Authorisation:

- Constitution of South Africa (Act No. 108 of 1996);
- National Environmental Management: Waste Management Act (Act No. 59 of 2008);
- National Environmental Management: Biodiversity Act (Act No.10 of 2004);
- National Veld and Forest Fire Act (Act No. 101 of 1998);
- National Water Act (Act No. 36 of 1998) as amended (NWA);
- Animals Protection Act (Act No. 71 of 1962);
- Societies for the Prevention of cruelty to Animals Act (Act No. 169 of 1993);
- National Heritage Resource Act (Act No. 25 of 1999);
- Conservation of Agricultural Resources Act (Act 43 of 1983);
- Promotion of Access to Information Act (Act No. 2 of 2000)
- Occupational Health and Safety Act (Act No. 85 of 1993); and
- Provincial and local bylaws, policies and frameworks.

## **3. Receiving Environment**

The Blinkpan Railway Siding is located on the remaining extent of portion 12 as well as on portions 13, 27, 29, 30 and 31 of the Farm Koomfontein 27 IS. It is located approximately 30 km south-east of Emalahleni, Steve Tshwete Local Municipality, Nkangala District, Mpumalanga Province and forms part of the quaternary catchment B11B which falls within the Olifants primary water management area. The site is in close proximity to Koomfontein and Goedehoop Mines as well as the Komati Power Station.

## **4. Alternatives**

Alternatives are defined in the NEMA EIA Regulations (2010) as “*different means of meeting the general purpose and requirements of the activity, which may include alternatives to: (a) the property on which or location where it is proposed to undertake the activity; (b) the type of activity to be undertaken; (c) the design or layout of the activity; (d) the technology to be used in the activity; and (e) the operational aspects of the activity and (f) the option of not implementing the activity*”.

For the purpose of this application, the following Alternatives were considered (with Alternative 1 (the preferred alternative) assessed):

- **Location / Property Alternatives:** Existing Location (Alternative 1). No site alternatives were identified or assessed as the infrastructure and the capacity for the activity already exists;
- **Design / Layout Alternatives:** Existing Layout (Alternative 1). No layout alternatives were identified or assessed as the infrastructure and the capacity for the activity already exists;

- **Technology Alternatives:** Existing Technology (Alternative 1). No technology alternatives have been identified or assessed as the infrastructure and capacity for the activity already exists;
- **Other alternatives (e.g. scheduling, demand, input, scale and design alternatives):** Existing longitudinal stockpile design vs. circular pile layout;
- **No-Go Alternative:** Compulsory.

**TABLE 1: Summary of the qualitative and quantitative advantages and disadvantages of the alternatives**

ALTERNATIVE	ADVANTAGES	DISADVANTAGES
<b>Property Alternative 1</b> (Preferred and only alternative assessed)	<ul style="list-style-type: none"> <li>✓ The site is existing and all the infrastructure and facilities are in place already; and</li> <li>✓ The location is ideal due to the close proximity to the railway line.</li> </ul>	<ul style="list-style-type: none"> <li>◇ There are no disadvantages to the current location.</li> </ul>
<b>Other alternatives (e.g. scheduling, demand, input, scale and design alternatives): Alternative 1 Existing longitudinal stockpile design</b> (preferred alternative)	<ul style="list-style-type: none"> <li>✓ No additional cost involved as the site is already adjusted to longitudinal stockpiles;</li> <li>✓ Lower rate of potential spontaneous combustion; and</li> <li>✓ The pile lengths can be extended easily and are only limited by the site size. Therefore expansion of the yard is uncomplicated.</li> </ul>	<ul style="list-style-type: none"> <li>◇ Longer conveyor belts; and</li> <li>◇ Lower storage area.</li> </ul>
<b>Other alternatives (e.g. scheduling, demand, input, scale and design alternatives): Alternative 2 Circular pile layout</b>	<ul style="list-style-type: none"> <li>✓ Shorter conveyor belts; and</li> <li>✓ Higher storage area.</li> </ul>	<ul style="list-style-type: none"> <li>◇ An additional cost would be involved to adjust the existing site to accommodate circular pile layout of stockpiles;</li> <li>◇ Higher rate of potential spontaneous combustion; and</li> <li>◇ Difficult to expand storage capacity;</li> </ul>

## 5. Public Participation

The Public Participation Process (PPP) undertaken for the proposed development is in accordance with the requirements of Regulations 54 – 57 of the Environmental Impact Assessment Regulations (2010) of NEMA and it forms an integral part of the Basic Assessment process.

The PPP tasks conducted to date include:

- Identification of key interested and affected parties (affected and adjacent landowners) and other stakeholders (Organs of State and other parties);
- Formal notification of the application to interested and affected parties (including all affected and adjacent landowners) and other stakeholders on 10 April 2014, by means of publications in two different newspapers;

site notices erected at visible locations close to the site; and notifications sent directly to identified I&APs and other stakeholders by e-mail / fax / letter; and

- The Draft Basic Assessment Report (DBAR) and Environmental Management Programme (EMPr) are released to the public and all relevant Organs of State and authorities for review and comment for 40 calendar days (10 April 2014 to 26 May 2014).

All I&AP registrations and comments received is formerly recorded in the Comments and Responses Report and will be distributed with the Final Basic Assessment Reports.

#### **4. Environmental Impact Statement**

The following key issues and potential impacts (direct and cumulative), was identified:

- Soil degradation;
- Ground water pollution and depletion;
- Surface water pollution and alteration of hydraulic characteristics of the area;
- Potential for spreading of alien invasive plant species;
- Loss of fauna and flora;
- Visual impacts;
- Noise impacts;
- Additional waste generation;
- Increased traffic on adjacent roads and associated impacts;
- Health and Safety Impacts;
- Decrease in air quality; and
- Increased availability of electricity (Positive);

The most significant negative impact is decreased air quality of the surrounding area, as a result of the additional coal to be stored and transferred. This impact as well as all other impacts identified above can however be mitigated to acceptable levels, resulting in a low overall negative impact arising from the proposed activity.

The increased availability of electricity to society as a result of the proposed activity, is a positive impact of high significance.




The alternative to the proposed longitudinal stockpiles, circular layout piles, have been assessed and found feasible, however compared to the longitudinal stockpile design, it is not the recommended option. The circular stockpile design will have a negative impact of higher significance than the proposed longitudinal stockpile design.

Overall it can be stated that the proposed development will have negative impacts on the environment. However the significance of the positive impact of the proposed development outweighs the negative impacts, provided that the mitigation measures detailed in the EMPr are implemented and strictly monitored.

#### **5. Conclusion and Recommendations**

A variety of mitigation measures have been identified in the EMPr that will serve to mitigate the scale, intensity, duration or significance of the potential negative impacts identified to be applied during the operational and decommissioning phases of the project. The proposed mitigatory measures, if implemented, will reduce the significance

of the majority of the identified impacts. It is therefore the recommendation of Environmental Assurance, based on the assessment of the current available information, that the Draft Basic Assessment Report for the proposed development should be accepted by the Competent Authority. This authorisation should be in line with sensitive planning, design and good environmental management. The negative impacts of the proposed activity can be mitigated to acceptable levels.

	<b>Originated By:</b>	<b>Reviewed By:</b>	<b>Approved By:</b>
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<b>Designation:</b>	Environmental Consultant	Quality Reviewer	Authorisations Manager
<b>Signature:</b>			
<b>Date:</b>	24/03/2014	27/03/2014	5/04/2014