



# environmental affairs

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

## RISK ASSESSMENT IN TERMS OF REGULATION 8 OF THE WASTE EXCLUSION REGULATIONS

<b>APPLICANT</b>	Palabora Copper (Pty) Ltd.
<b>WASTE STREAM OR PORTION OF A WASTE STREAM TO BE EXCLUDED FROM THE DEFINITION OF WASTE</b>	Dolerite rock
<b>BENEFICIAL USE/S</b>	Concrete batching
	Road building
	Crushed stone / aggregate
<b>WASTE GENERATING FACILITY OR FACILITIES</b>	
<b>PHYSICAL ADDRESS OF FACILITY OR FACILITIES</b>	1 Copper Road
	Phalaborwa
	1390
<b>GPS CO-ORDINATES OF WASTE GENERATING FACILITY OR FACILITIES</b>	Centre: 23 59 21.86 Latitude; 31 08 40.18 Longitude
	A: 23 59 21.03 Latitude; 31 08 39.54 Longitude
	B: 23 59 21.57 Latitude; 31 08 41.16 Longitude
	C: 23 59 22.78 Latitude; 31 08 40.20 Longitude D: 23 59 21.99 Latitude; 31 08 39.06 Longitude
<b>CONTACT PERSON</b>	
<b>NAME</b>	
<b>ADDRESS</b>	Jacques Moller 1 Copper Road, Phalaborwa, 1389, Limpopo

<b>EMAIL ADDRESS</b>	jacques.moller@palabora.co.za	
<b>TELEPHONE</b>	015 780 2098	
<b>* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS</b>	<p>Dolerite is mined together with carbonatite from Palabora's underground mining works. Dolerite and carbonatite are then crushed and passed through an autogenous mill, after which they are separated from each other by means of an ore sorter.</p> <p>Separated dolerite is then stockpiled on a pad and from there used within the business for concrete batching and civil works, or stored on an approved facility (waste rock dump) for later recovery and re-use.</p>	
<b>PRODUCTION PROCESS FLOW CHART ATTACHED</b>	<b>YES</b> x	<b>NO</b>
<b>WASTE CLASSIFICATION</b>	<b>HAZARDOUS</b>	<b>GENERAL</b> x
<b>IF WASTE IS HAZARDOUS LIST THE HAZARDS OF THE WASTE</b>		
<b>*A process flow chart must be attached to the process description</b>		

**RISK ASSESSEMENT WITHOUT MITIGATION**

Activity	Risk Description	Environmental Receptors	Assessment of Risk				Significance	
			Impact	Probability	Magnitude	Duration		Scale
<p>Loading, transporting and crushing of dolerite</p>	<p>Dust generation from spillages and material movement</p>	<p>Air quality impacts on photosynthesising plants animals and people</p>	<p>Lower production rate in plants. Respiratory tract nuisance in animals and people</p>	<p>3</p>	<p>2</p>	<p>1</p>	<p>2</p>	<p>15</p>

The following factors and criteria must be used to assess the impacts of the activities:

Criteria	
MAGNITUDE (Severity)	DURATION
10 - Very high	5 - Permanent (longer than 10 years)
8 - High	4 - Long-term (5 to 10 years)
6 - Moderate	3 - Medium-term (12 months to 5 years)
4 - Low	2 - Short-term (0 to 12 months)
2 - Minor	1 - Immediate
SCALE	PROBABILITY (Likelihood)
5 - International	5 - Definite
4 - National	4 - Highly probable
3 - Regional	3 - Medium probability
2 - Local	2 - Low probability
1 - Site only	1 - Improbable
0 - None	0 - None

#### Magnitude

Magnitude measures the size of the impact

#### Duration

Duration refers to the lifetime of the impact i.e. how long it will last

#### Scale

The scale refers to the extent of the impact.

#### Probability

The probability refers to the chance of impact to occur. The potential impact could be most likely to occur, unlikely, etc.

#### Assessment of Significance of impact

Significance rating of the potential impacts illustrates the importance of the impact itself. The size of area affected by pollution may be extremely high but the significance of this effect is dependent on the concentration or level of pollution in that area. In order to determine the significance of impact, the following method was used:

Significance Points (SP) = (Magnitude + Duration + Scale) x Probability

The values of SP are then ranged as follows:

Rating		Description
SP >60	Indicates high environmental significance	An impact which could influence the decision about whether or not to proceed with the activities regardless of any possible mitigation.
SP 30 – 60	Indicates moderate environmental significance	An impact or benefit which is sufficiently important to require management and which could have an influence on the decision unless it is mitigated.
SP <30	Indicates low environmental significance	Impacts with little real effect and which will not have an influence on or require modification of the activities.
+	Positive impact	An impact that is likely to result in positive consequences/effects

I, J-J. Möller hereby declare that I have read the completed the Risk Assessment form and hereby confirm that the information is to the best of my knowledge true and correct.

Furthermore, I declare that I am fully aware of my responsibilities in terms of the Waste Exclusion Regulations, and that failure to comply with these Regulations may constitute an offence in terms of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008).

Applicant (Full names) JOHANNUS JACOBUS MÖLLER

Designation ENVIRONMENTAL SPECIALIST: WASTE MANAGEMENT

Signature 

Date

18/01/2019

Place

PHALASKRWA.

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Date Received			
Decision Taken	Authorised		Not Authorised (provide reasons)
Reference Number			

