



# environmental affairs

Department:  
Environmental Affairs  
**REPUBLIC OF SOUTH AFRICA**

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

<b>APPLICANT</b>	BADER SA (Pty) Ltd
<b>WASTE STREAM OR PORTION OF A WASTE STREAM TO BE EXCLUDED FROM THE DEFINITION OF WASTE</b>	Boiler Ash
<b>BENEFICIAL USE/S</b>	<p>An agreement has been entered into between BADER SA (Pty) Ltd Cemblocks (Pty)Ltd and Madibelo (PTY) Ltd to use Boiler Ash in cement brick manufacturing.</p> <p>Boiler Ash will be used as raw material in cement brick manufacturing by both Cemblocks (Pty)Ltd and Madibelo (Pty)Ltd. Cemblocks (Pty)Ltd is an established enterprise that has been producing for more than 30 years. Their clients include but are not limited to: Builders warehouse, Build It, Kgetlengriver Local municipality, Madibeng local municipality, Rustenburg local municipality, Moses Kotane Local Municipality. Madibelo (Pty)Ltd is a growing local business in Ga-Rankuwa that supplies to the local community and also employs from the local community. Please refer to attached letter from Madibelo (Pty)Ltd</p> <p>The re-use of Boiler Ash will have a beneficial impact on the environment by reducing the stress placed on landfills.</p> <p>The re-use of Boiler ash from Bader SA will divert an average of 22.6 tons of waste from landfill on a Monthly basis.</p> <p>The above mentioned 22.6 Tons of boiler ash will be given to both Cemblocks (Pty)Ltd &amp; Madibelo (Pty)Ltd to use as recycled material in their cement bricks which in turn will lower their production cost and result in a more affordable brick which may in the long run contribute to lower housing cost for the community.</p> <p>Madibelo (Pty)Ltd may also benefit greatly due to lower production cost which may in turn benefit the community through job opportunities and more affordable housing cost for the local community in Ga-Rankuwa as the business grows with the continued support of Bader SA (Pty)Ltd.</p>

<b>WASTE GENERATING FACILITY OR FACILITIES</b>	BADER SA (Pty) Ltd	
<b>PHYSICAL ADDRESS OF FACILITY OR FACILITIES</b>	Stand 232	
	3 <sup>rd</sup> Street	
	Ga-Rankuwa	
<b>GPS CO-ORDINATES OF WASTE GENERATING FACILITY OR FACILITIES</b>	1) 25° 33' 38" Latitude; 27° 59' 37" Longitude	
	2) 25° 33' 32" Latitude; 27° 59' 38" Longitude	
	3) 25° 33' 40" Latitude; 27° 59' 39" Longitude	
	4) 25° 33' 35" Latitude; 27° 59' 43" Longitude	
<b>CONTACT PERSON</b>		
<b>NAME</b>	Marinda de Beer / Heleen Manley	
<b>ADDRESS</b>	Stand 232, 3 <sup>rd</sup> street, Ga-Rankuwa	
<b>EMAIL ADDRESS</b>	<a href="mailto:Marinda.debeer@bader-leather.com">Marinda.debeer@bader-leather.com</a> / <a href="mailto:Heleen.manley@bader-leather.com">Heleen.manley@bader-leather.com</a>	
<b>TELEPHONE</b>	012 797 7100 / 066 132 7375	
<b>* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS</b>	<p><u>Boiler Ash generation</u>  Boilers are used to generate steam to heat ovens used in the drying process of Leather Hides in the production process. Ash is generated through the combustion process. Ash particles gather in trolleys that are cooled and moved to disposal area.</p>	
<b>PRODUCTION PROCESS FLOW CHART ATTACHED</b>	<u>YES</u>	NO
<b>WASTE CLASSIFICATION</b>	HAZARDOUS	<u>GENERAL</u>
<b>IF WASTE IS HAZARDOUS LIST THE HAZARDS OF THE WASTE</b>	Non- Hazardous as per SANS 10234 classification results	
<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
Storage	Accidental spillage into environment	Soil	Soil contamination	3	4	3	1	24
		Surface water	Contamination transported to surface water	2	4	2	1	14
		Ground water	Percolation into groundwater	2	4	2	2	16
	Leachate from stockpiled material during rainfall	Soil	Soil contamination	3	4	3	1	24
		Surface water	Contamination transported to surface water	2	4	2	1	14
		Ground water	Percolation into groundwater	2	4	2	2	16
Transportation	Accidental spillage into the environment	Air	Deterioration of local air quality	3	4	2	2	24
		Air	Deterioration of local air quality	3	4	2	2	24
		Soil	Soil contamination	3	4	3	1	24
		Surface water	Contamination transported to surface water	2	4	2	1	14
		Ground water	Percolation into groundwater	2	4	2	2	16

Activity	Risk Description	Environmental Receptors	Assessment of Risk					Significance
			Impact	Probability	Magnitude	Duration	Scale	
Brick Manufacturing	Windblown ash	Air	Deterioration of local air quality	3	4	2	2	24
		Visual Impact	Poor Housekeeping	2	2	2	1	10
	Dust generation due to moving of ash	Air	Deterioration of local air quality	3	4	2	2	24
		Soil	Soil contamination	3	4	3	1	24
	Spillage during moving of ash	Surface water	Contamination transported to surface water	2	4	2	1	14
		Ground water	Percolation into groundwater	2	4	2	2	16
Integrity and quality of cement bricks manufactured containing boiler ash	Resource depletion (landfill) Safety concerns	Resource depletion due to waste generation	0	2	1	0	0	
		Safety of Customers						

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:

$$\text{Significance Points (SP)} = (\text{Magnitude} + \text{Duration} + \text{Scale}) \times \text{Probability}$$

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, Maeinda de Beer 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) Maeinda de Beer.

Designation SHEQ Manager

Signature M de Beer.

Date 24 August 2020 Place Ga-Pankuwa.

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