



## environmental affairs

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

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

<b>APPLICANT</b>	Kimberly-Clark of South Africa (Pty) Limited
<b>WASTE STREAM OR PORTION OF A WASTE STREAM</b>	Ash from Combustion
<b>BENEFICIAL USE/S</b>	Brickmaking
	Block making
	Road construction
	Cement production
<b>WASTE GENERATING FACILITY</b>	Kimberly-Clark Enstra Mill

<b>PHYSICAL ADDRESS OF FACILITY</b>	East Geduld Road, Springs, 1559	
<b>GPS CO-ORDINATES OF WASTE GENERATING FACILITY</b>	Latitude: 26° 12' 24.84"S Longitude: 28° 26' 25.44"E	
<b>CONTACT PERSON</b>		
<b>NAME</b>	Sithembile Dlamini	
<b>ADDRESS</b>	Private bag X57, Springs, 1560	
<b>EMAIL ADDRESS</b>	Sithembile.Dlamini@kcc.com	
<b>TELEPHONE</b>	011 360 7271	
<b>* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS</b>	Coal Fired Boilers are used to generate steam for pulp and paper production. Ash is generated through the combustion process. Removed via the conveyor into the ash bins.	
<b>PRODUCTION PROCESS FLOW CHART ATTACHED</b>	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
<b>IDENTIFICATION OF HAZARDS</b>	Health Hazard: Dust	
<b>WASTE CLASSIFICATION</b>	HAZARDOUS <input type="checkbox"/>	<b>GENERAL</b> <input checked="" type="checkbox"/>
<b>*A process flow chart must be attached to the process description</b>		

## RISK ASSESSEMENT WITHOUT MITIGATION

Activity	Risk Description	Environmental receptors	Impact	Assessment of the risk				
				Probability	Magnitude	Duration	Scale	Significance
Storage	Accidental spillage into the environment	Soil	Soil contamination	2	2	2	2	12
		Surface water	Contamination transported to surface water	2	2	2	2	12
		Groundwater	Percolation into groundwater	1	2	2	2	6
	Leachate from stocked material during rainfall	Soil	Soil contamination	1	2	2	2	6
		Surface water	Contamination transported to surface water	1	2	2	2	6
		Groundwater	Percolation into groundwater	1	2	2	2	6
	Windblown ash	Air	Deterioration of local air quality	2	2	2	2	12
Transportation	Air borne ash	Air	Deterioration of local air quality	3	2	1	2	15
	Accidental spillage into the environment	Soil	Soil contamination	1	2	2	2	6
		Surface water	Contamination transported to surface water	1	2	2	2	6

Activity	Risk Description	Environmental receptors	Impact	Assessment of the risk				
				Probability	Magnitude	Duration	Scale	Significance
		Groundwater	Percolation into groundwater	1	2	2	2	6
Manufacturing	Windblown ash	Air	Deterioration of local air quality	3	4	2	2	24
		Visual	Visual impact form windblown waste	2	2	2	2	12
	Dust generation due to mixing process	Air	Deterioration of local air quality	2	4	2	2	16
	Spillage during mixing process	Soil	Soil contamination	2	4	3	1	16
		Surface water	Contamination transported to surface water	2	4	3	2	18
		Groundwater	Percolation into groundwater	2	4	3	2	18

**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
<b>SP &gt;60</b>	Indicates <b>high</b> environmental significance	An impact which could influence the decision about whether or not to proceed with the activities regardless of any possible mitigation.
<b>SP 30 – 60</b>	Indicates <b>moderate</b> 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.
<b>SP &lt;30</b>	Indicates <b>low</b> environmental significance	Impacts with little real effect and which will not have an influence on or require modification of the activities.
<b>+</b>	<b>Positive impact</b>	An impact that is likely to result in positive consequences/effects

I, **Sithembile Dlamini** 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) **Sithembile Dlamini**

Designation **Environmental Engineer**

Signature  \_\_\_\_\_

Date **10/10/2018**

Place **Springs**

**FOR OFFICE USE ONLY**

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