



# environmental affairs

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

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

<b>APPLICANT</b>	Sappi Southern Africa Limited – Saiccor Mill
<b>WASTE STREAM OR PORTION OF A WASTE STREAM</b>	Ash from Combustion
<b>BENEFICIAL USE/S</b>	Brickmaking
	Block making
	Production of cement
	Road surfacing
<b>WASTE GENERATING FACILITY</b>	Sappi Saiccor Mill

Ash

<b>PHYSICAL ADDRESS OF FACILITY</b>	1 Umkomanzi Drift, Umkomaas, 4170	
<b>GPS CO-ORDINATES OF WASTE GENERATING FACILITY</b>	Latitude: 30° 10' 52.1616"S Longitude: 30° 46' 18.069"E	
<b>CONTACT PERSON</b>		
<b>NAME</b>	Jurie Marx	
<b>ADDRESS</b>	PO Box 62, Umkomaas, 4170	
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<b>TELEPHONE</b>	039 973 8430	
<b>* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS</b>	Coal fired boilers are used to generate steam and electricity for pulp and paper production. Ash is generated through the combustion process. Fine ash (fly ash) is extracted from the flue gas using electrostatic precipitators. Ash particles that are too large to be entrained in the flue gas, drop to the bottom of coal combustion installations where it is removed as coarse ash.	
<b>PRODUCTION PROCESS FLOW CHART ATTACHED</b>	YES	NO
<b>IDENTIFICATION OF HAZARDS</b>	Environmental Hazards: Dust, Leachate	
<b>WASTE CLASSIFICATION</b>	HAZARDOUS	GENERAL
<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	3	4	3	1	24
		Surface water	Contamination transported to surface water	2	4	3	2	18
		Groundwater	Percolation into groundwater	2	4	3	2	18
	Leachate from stockpiled material during rainfall	Soil	Soil contamination	3	4	3	1	24
		Surface water	Contamination transported to surface water	2	4	3	2	18
		Groundwater	Percolation into groundwater	2	4	3	2	18
Transportation	Windblown ash	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	2	27
	Accidental spillage into the environment	Surface water	Contamination transported to surface water	2	4	3	2	18

Activity	Risk Description	Environmental receptors	Impact	Assessment of the risk				
				Probability	Magnitude	Duration	Scale	Significance
Manufacturing		Groundwater	Percolation into groundwater	3	4	3	2	27
	Windblown ash	Air	Deterioration of local air quality	3	4	2	2	24
		Visual	Visual impact from windblown waste	3	4	2	2	24
		Air	Deterioration of local air quality	3	4	2	2	24
	Spillage during mixing process	Soil	Soil contamination	3	4	3	1	24
Land Application	Concentration of contaminants due to incorrect application rates	Surface water	Contamination transported to surface water	2	4	3	2	18
		Groundwater	Percolation into groundwater	2	4	3	2	18
	Soil	Soil contamination	3	4	3	1	24	
		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	
<b>MAGNITUDE (Severity)</b>	<b>DURATION</b>
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
<b>SCALE</b>	<b>PROBABILITY (Likelihood)</b>
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	An impact which could influence the decision about whether or not to proceed with the activities regardless of any possible mitigation.
SP 30 – 60	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	Impacts with little real effect and which will not have an influence on or require modification of the activities.
+	An impact that is likely to result in positive consequences/effects

I, J. Mark 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) Julie Ann van der Merwe

Designation Sheep development Manager.

Signature 

Date 30/8/2018 Place Umkomaas.

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