



## 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 – Ngodwana Mill	
<b>WASTE STREAM OR PORTION OF A WASTE STREAM TO BE EXCLUDED FROM THE DEFINITION OF WASTE</b>	Ash	
<b>BENEFICIAL USE/S</b>	Landfill cover material	
<b>WASTE GENERATING FACILITY OR FACILITIES</b>		
<b>PHYSICAL ADDRESS OF FACILITY OR FACILITIES</b>	Sappi Ngodwana Mill, N4 Highway, Ngodwana, 1209	
<b>GPS CO-ORDINATES OF WASTE GENERATING FACILITY OR FACILITIES</b>	25°34'41.1" Latitude 30°39'36.1" Longitude	
<b>CONTACT PERSON</b>		
<b>NAME</b>	Jabu Tlou	
<b>ADDRESS</b>	Sappi Ngodwana Mill, N4 Highway, Ngodwana, 1209	
<b>EMAIL ADDRESS</b>	Jabu.Tlou@sappi.com	
<b>TELEPHONE</b>	+27(0)13 734 6493	
<b>* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS</b>	Angular ash particles from coal combustion process that are too large to be entrained in the flue gas and is therefore dumped from the bottom of coal combustion installations.	
<b>PRODUCTION PROCESS FLOW CHART ATTACHED</b>	<b>YES</b> <input checked="" type="checkbox"/>	<b>NO</b> <input type="checkbox"/>

<b>WASTE CLASSIFICATION</b>	<b>HAZARDOUS</b> <b>X</b>	<b><del>GENERAL</del></b>
<b>IF WASTE IS HAZARDOUS LIST THE HAZARDS OF THE WASTE</b>	<b>Skin burns</b>	<b>Eye damage</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 the risk					Significance
			Impact	Probability	Magnitude	Duration	Scale	
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	Assessment of the risk					Significance
			Impact	Probability	Magnitude	Duration	Scale	
Manufacturing	Windblown ash	Groundwater	Percolation into groundwater	3	4	3	2	27
		Air	Deterioration of local air quality	3	4	2	2	24
		Visual	Visual impact from windblown waste	3	4	2	2	24
	Dust generation due to mixing process	Air	Deterioration of local air quality	3	4	2	2	24
		Soil	Soil contamination	3	4	3	1	24
Land Application	Spillage during mixing process	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
	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

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 <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.
SP 30 – 60	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.
SP <30	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>Positive impact</b>	An impact that is likely to result in positive consequences/effects

I, Jabu Tlou 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) Jabu Tlou

Designation Risk Manager \_\_\_\_\_

Signature  \_\_\_\_\_

Date 11/02/2020 Place Ngodwana

**FOR OFFICE USE ONLY**

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