



# 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 – Stanger Mill
<b>WASTE STREAM OR PORTION OF A WASTE STREAM</b>	Ash from Combustion
<b>BENEFICIAL USE/S</b>	Brickmaking
	Block making
<b>WASTE GENERATING FACILITY</b>	Sappi Stanger Mill
<b>PHYSICAL ADDRESS OF FACILITY</b>	Dukuza Drive, Gledhow Mount, Stanger
<b>GPS CO-ORDINATES OF WASTE GENERATING FACILITY</b>	Latitude: 29° 21' 50.19" S
	Longitude: 31° 17' 39.40" E
<b>CONTACT PERSON</b>	
<b>NAME</b>	Nivendren Ramsamy

<b>ADDRESS</b>	P. O. Box 725, Stanger, 4450		
<b>EMAIL ADDRESS</b>	Nivendren.Ramsamy@sappi.com		
<b>TELEPHONE</b>	032 437 2126		
<b>* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS</b>	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	X	NO
<b>IDENTIFICATION OF HAZARDS</b>	Environmental Hazards: Dust, Leachate Boiler ash is not classified as an environmental hazard in terms of SANS 10234 but is classified as having potential health hazards to workers without appropriate personal protective equipment		
<b>WASTE CLASSIFICATION</b>	HAZARDOUS	X	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	
	Soil	Soil contamination	3	4	3	1	24	
Transportation	Leachate from stockpiled material during rainfall	Surface water	Contamination transported to surface water	2	4	3	2	18
		Groundwater	Percolation into groundwater	2	4	3	2	18
	Air	Windblown ash	Deterioration of local air quality	3	4	2	2	24
	Air	Air borne ash	Deterioration of local air quality	3	4	2	2	24
Transportation	Accidental spillage into the environment	Soil	Soil contamination	3	4	3	2	27
		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
	Dust generation due to mixing process	Air	Deterioration of local air quality	3	4	2	2	24
	Spillage during mixing process	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	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, Nivindron Ramsamy 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) Nivindron Ramsamy

Designation SME Manager

Signature [Handwritten Signature]

Date 03/09/2022 Place Stanger

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