



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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

APPLICANT	Sappi Southern Africa Limited – Tugela Mill
WASTE STREAM OR PORTION OF A WASTE STREAM TO BE EXCLUDED FROM THE DEFINITION OF WASTE	Biomass – wood fines, Clarifier sludge
BENEFICIAL USE/S	Fertiliser
	Fuel rods
	Brick making
	Block making
	Landfill capping and/or cover material
	Treatment of waste to regulate pH
	Moulding
	Mulching
WASTE GENERATING FACILITY OR FACILITIES	

PHYSICAL ADDRESS OF FACILITY OR FACILITIES	1 Old Main Road, Mandeni	
GPS CO-ORDINATES OF WASTE GENERATING FACILITY OR FACILITIES	29°9'12.49" Latitude; 31°24'26.88" Longitude 29°8'57.43" Latitude; 31°24'30.50" Longitude 29°8'58.00" Latitude; 31°24'12.34" Longitude 29°9'16.05" Latitude; 31°24'5.28" Longitude	
CONTACT PERSON		
NAME	Kerisha Govender	
ADDRESS	Private Bag X6034, 4490	
EMAIL ADDRESS	Kerisha.Govender@sappi.com	
TELEPHONE	032 456 1456	
* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS	<p>Biomass waste (wood fines, slivers and bark) is generated through the wood chipping process. The timber logs which are received are processed and chipped in the chipper for use in the digester. The long fine shavings/ rejects that cannot be used in the digester is referred to as the slivers and bark and the finer wood rejects that cannot be processed in the digester is referred to as the wood fines.</p> <p>Fibre Sludge is recovered from the Mill's clarifiers during the effluent treatment process.</p>	
PRODUCTION PROCESS FLOW CHART ATTACHED	YES	
WASTE CLASSIFICATION		GENERAL
IF WASTE IS HAZARDOUS LIST THE HAZARDS OF THE WASTE		
*A process flow chart must be attached to the process description		

**Biomass – wood fines
process flow**

Wood logs received
from supplier



Wood logs chipped in
the chipper



Slivers, fines and bark that
cannot be processed in the
digester is collected in a
concrete bay

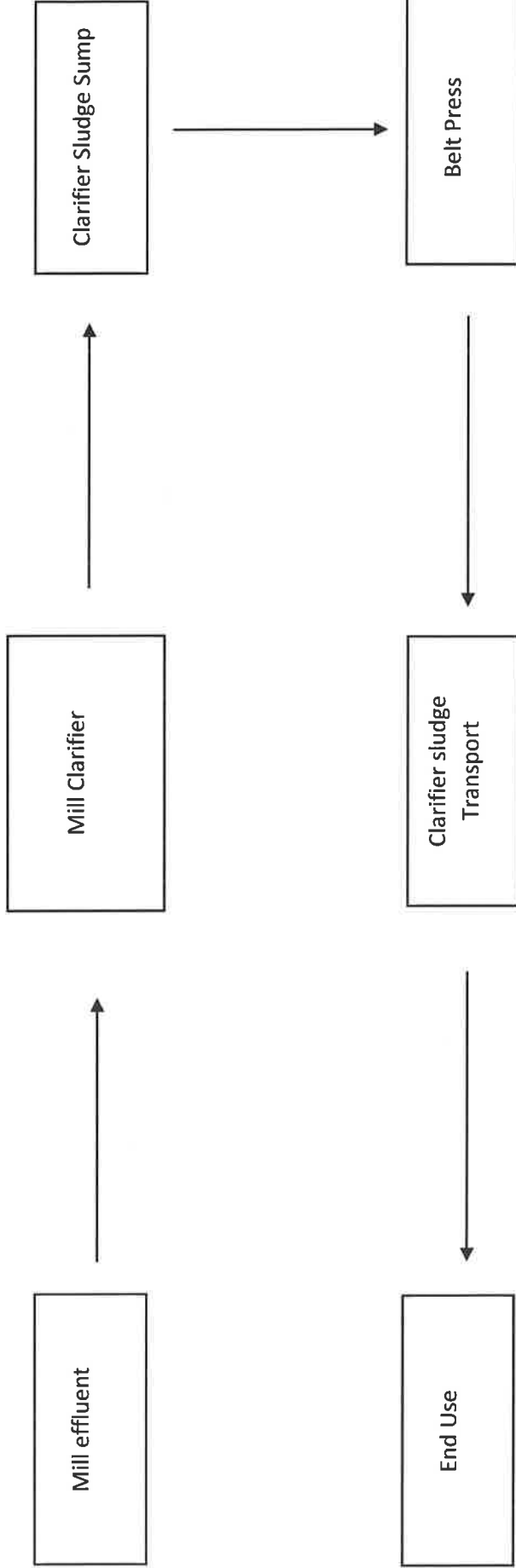


Biomass Transport



End Use

Biomass – Clarifier sludge process flow



RISK ASSESSEMENT WITHOUT MITIGATION

Activity	Risk Description	Environmental receptors	Assessment of the risk					Significance
			Impact	Probability	Magnitude	Duration	Scale	
Storage	Fire risk	Air	Deterioration of local air quality	3	4	1	1	18
	Leachate from stockpiled material during rainfall	Soil	Soil contamination	3	4	3	1	24
		Surface water	Contaminated stormwater transported to surface water	2	4	3	2	18
		Groundwater	Percolation into groundwater	2	4	3	2	18
Transportation	Airborne material	Air	Deterioration of local air quality	3	4	2	2	24
	Air borne material	Air	Deterioration of local air quality	3	4	2	2	24
	Accidental spillage into the environment	Soil	Soil contamination	3	4	3	2	24
		Surface water	Contaminated stormwater transported to surface water	2	4	3	2	18
	Groundwater	Percolation into groundwater	2	4	3	2	18	

Activity	Risk Description	Environmental receptors	Assessment of the risk					Significance
			Impact	Probability	Magnitude	Duration	Scale	
Processing	Accidental spillage into the environment	Soil	Soil contamination	3	4	3	1	24
		Surface water	Contaminated stormwater transported to surface water	2	4	3	2	18
		Groundwater	Percolation into groundwater	2	4	3	2	18
Land Application	Concentration of contaminants due to incorrect application rates	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	
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 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, KERISHA GOLENDER 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) KERISHA GOLENDER

Designation ACTING SHED MANAGER

Signature 

Date 18 / 02 / 2020 Place DURBAN

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