



environmental affairs

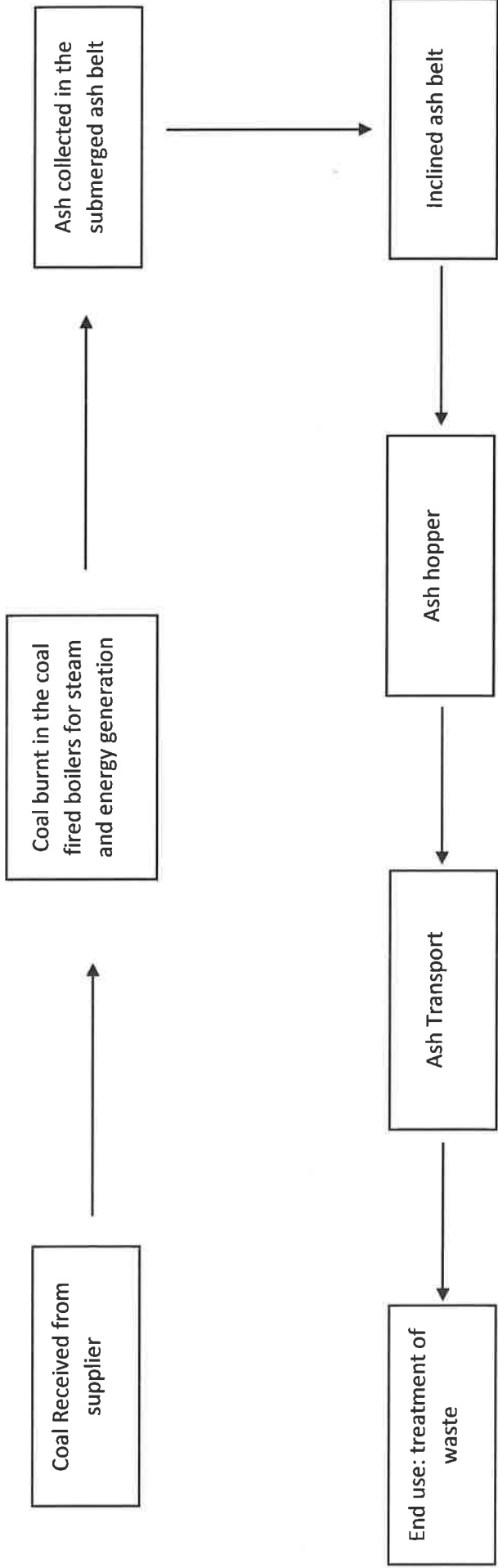
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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	Boiler ash
BENEFICIAL USE/S	Treatment of waste to regulate pH
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
EMAIL ADDRESS	Kerisha.Govender@sappi.com
TELEPHONE	032 456 1456
* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS	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.	
PRODUCTION PROCESS FLOW CHART ATTACHED	YES	NO
WASTE CLASSIFICATION		GENERAL
IF WASTE IS HAZARDOUS LIST THE HAZARDS OF THE WASTE		
*A process flow chart must be attached to the process description		

Ash process flow



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	
		Groundwater	Percolation into groundwater	3	4	3	2	27
Manufacturing	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
		Soil	Soil contamination	3	4	3	1	24
	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

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 GOVENDER 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 GOVENDER

Designation ACTING SHED MANAGER

Signature 

Date 18/02/2020 Place DURBAN

FOR OFFICE USE ONLY

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