



**forestry, fisheries
& the environment**

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

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

	(For official use only)
File Reference Number:	12/9/11
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Date Received:	

Risk Assessment for an application for exclusion of Waste stream or portion of Waste stream in terms of the National Environmental Management: Waste Act, 2008(Act No.59 of 2008), as amended.

Kindly note that:

1. This form is current as of 01 April 2021. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
2. The information must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.
3. Incomplete forms (including information as required in the application form may be returned to the applicant for revision and the inclusion of additional information.
4. Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.

BACKGROUND INFORMATION	
APPLICANT	Mondi South Africa (Pty) Ltd – Merebank mill
CONTACT PERSON	Environmental Manager
NAME	Rafiq Gafoor
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WASTE GENERATING FACILITY OR FACILITIES						
PHYSICAL ADDRESS OF FACILITY OR FACILITIES	Travancore Drive Merebank, 4052					
GPS CO-ORDINATES AT CORNERS OF WASTE GENERATING FACILITY OR FACILITIES	LATITUDE			LONGITUDE		
	29 ⁰	57'	35.8" S	30 ⁰	58'	14.6" E
	29 ⁰	57'	42.1" S	30 ⁰	58'	11.8" E
	29 ⁰	57'	33.1" S	30 ⁰	57'	51.02" E
	29 ⁰	57'	25.5" S	30 ⁰	57'	56.9" E
WASTE STREAM OR PORTION OF A WASTE STREAM TO BE EXCLUDED FROM THE DEFINITION OF WASTE	<ol style="list-style-type: none"> 1. Recovery of biomass forestry by-products (tree tops, branches and stumps):currently in place. 2. To be implemented after discussion with role players <ol style="list-style-type: none"> a. eThekwini Alien vegetation control program and tree felling activities by eThekwini residents. b. Wood waste (offcuts from timber industry, wood waste from other industry). 					
BENEFICIAL USE/S	Fuel Feedstock in multifuel boiler for energy (heat and electricity) generation to reduce coal usage and substitute fossil fuel					

WASTE GENERATING PROCESS	
DETAILED DESCRIPTION OF WASTE GENERATING PROCESS ¹	Refer to process flow diagram

¹ A process flow chart must be attached with this form for the process description

PRODUCTION PROCESS FLOW CHART ATTACHED	YES	NO
WASTE CLASSIFICATION	HAZARDOUS	GENERAL X
IF HAZARDOUS LIST THE HAZARDS OF THE WASTE		

RISK ASSESSMENT WITHOUT MITIGATION

Activity	Risk Description	Affected Pathways	Environmental Receptors	Impact	Probability	Magnitude	Duration	Scale	Significance Rating
1. Biomass Collection,	Legitimacy of biomass sources: Illegal trade in forest products/wood, as well as the illegal exploitation of natural resources posing a serious threat to the environment and overall unsustainable forestry management practices	Legal compliance requirement, wood sources, forestry management and sustainability	Ecology, Forestry, Local Community, Waste users	Legal non-compliance: Lack of system to demonstrate wood is being derived from legal forest harvesting and potential overall unsustainable forestry management practices	4	8	3	3	56
2. Biomass Transportation	The effects of geographical location of biomass supply on the Green House Gases (GHG) emission efficiency of the final product	Transportation, Supply Chain, Ecology, GHG, Climate	Ecology, Business, Economy	Negative: The wide geographical spread of biomass may make it uneconomical to collect and transport, and affect the GHG emission efficiency of the final product	3	10	3	3	48

Activity	Risk Description	Affected Pathways	Environmental Receptors	Impact	Probability	Magnitude	Duration	Scale	Significance Rating
	Biomass spills	Food Chain, Pollutants released into surface water and percolation into groundwater	Aquatic Ecosystem, Local water users	Negative: Ecological, Social and Health impacts linked to water pollution	4	6	3	2	44
3. Biomass receiving at the mill	Contamination of other materials besides biomass Indigenous tress being received by the mill	Emissions into ambient air during combustion, Inhalation of Dust and Odours, Fire Risk	Workers, Local Community, Ambient Air	Negative: Air Quality Impacts and Health hazards associated with odours, fire, noise and dust inhalation	4	6	3	2	44
4. Biomass Storage Operations	Air pollution: Dust, Odours, Noise and Potential Spontaneous Combustion (Fire accidents) of biomass stockpile	Emissions into ambient air, Noise, Inhalation of Dust and Odours, Fire Risk	Workers, Local Community, Ambient Air	Negative: Air Quality Impacts and Health hazards associated with odours, fire, noise and dust inhalation	5	6	3	2	55

Activity	Risk Description	Affected Pathways	Environmental Receptors	Impact	Probability	Magnitude	Duration	Scale	Significance Rating
	Water Pollution: Contamination due to leachate, release and/or spills into waterways	Food Chain, Pollutants released into surface water and percolation into groundwater	Aquatic Ecosystem, Local water users	Negative: Ecological, Social and Health impacts linked to water pollution	4	6	3	2	44
5. The use of Biomass for energy generation	Indoor and Outdoor Air Quality impacts: air pollution particularly dust from biomass combustion	Ambient air quality, Inhalation of polluted air	Workers, Local community, Local ambient air	Negative: Health Hazards Respiratory concerns associated with dust inhalation	4	8	3	2	52
	Sustainability and Energy self-sufficiently: Security for supply of biomass as a renewable source of energy.	Biomass sources, Waste Management	Ecology, Industrial facilities	Positive Environmental Benefits: Biomass produced from onsite industrial wood waste and forestry by-products provides reliable and consistent source of energy.	+	+	+	+	+

Activity	Risk Description	Affected Pathways	Environmental Receptors	Impact	Probability	Magnitude	Duration	Scale	Significance Rating
	Ecological and Economic impacts resulting from burning biomass for energy as an alternative destination for discarded biomass materials, rather than being sent to landfills	Waste Management, Waste Disposal Costs	Ecology, Soil/Land, Industry and Landfill Sites	Positive Environmental and Economic Benefits: Biomass energy use reduces the amount of waste to landfill and reduces the cost of landfill disposal and amount of land required for landfill	+	+	+	+	+
	Ecological Atmospheric Impacts: Greenhouse Gases (GHG) emissions from production and use of biomass compared to fossil fuels.	Energy Production, Atmospheric Emissions	Ecology, Atmosphere	Positive Environmental Benefits: Biomass energy is an eco-friendly alternative to fossil fuels and helps reduce GHG emissions	+	+	+	+	+
	Social impacts: The effect of biomass re-use on social prosperities	Social prosperities, Economy	Local community	Positive Social benefits: Generation of employment and economic development	+	+	+	+	+

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 – 10 years)
6 – Moderate	3 – Medium term (12 months to 5 years)
4 – Low	2 – Short term (< 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 – Improbably
0 – None	0 – None

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 the impact to occur. The potential impact could be most likely to occur, unlikely, etc.

Assessment of Significance of Impact

Significance rating of the potential impact illustrates the importance of the impact itself. The size of the 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 an impact, the following method should be used:


Significance (S) = (Magnitude + Duration + Scale) x Probability

The values of S must then be categorised as follows:

RATING		DESCRIPTION
SP > 60	High significance	An impact which could influence the decision about whether or to proceed with the activities regardless of any possible mitigation
SP 30 – 60	Moderate 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	Low 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 a positive consequence/effect

I, Donovan Naidoo (the Applicant) hereby declare that I have read the completed 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).



Signature of the applicant²/ Signature on behalf of the applicant:

Donovan Naidoo

Name of Applicant:

Operations Director Merebank

Designation

28/03/2023

Date:

² If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority.