



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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

APPLICANT	Mondi South Africa Pty Ltd (Mondi)
WASTE STREAM OR PORTION OF A WASTE STREAM	Biomass
BENEFICIAL USE/S	Landfill capping
	Fuel source for Multi-Fuel Boiler
	Reuse in the production of low-grade paper/pulp
	Agricultural mulch
WASTE GENERATING FACILITY	Anaerobic digestion
	Mondi Merebank Mill

PHYSICAL ADDRESS OF FACILITY	234 Travancore Drive, Merebank, KwaZulu Natal	
GPS CO-ORDINATES OF WASTE GENERATING FACILITY	<ol style="list-style-type: none"> 1. Northern corner of the Mill Latitude: 29°57'26.62" S Longitude 30°57'57.47" E 2. Eastern corner of the Mill Latitude: 29°57'33.35" S Longitude 30°58'15.59" E 3. Southern corner of the Mill Latitude: 29°57'46.50" S Longitude 30°58'12.70" E 4. Western corner of the Mill Latitude: 29°57'33.15" S Longitude 30°57'51.51" E 	
CONTACT PERSON		
NAME	Mr. R. Gafoor	
ADDRESS	234 Travancore Drive, Merebank, 4052	
EMAIL ADDRESS	rafiq.gafoor@mondigrroup.com	
TELEPHONE	031 451 2319 082 804 9203	
* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS	<ul style="list-style-type: none"> • Acid and alkali effluent streams from the Mill mix in a mixing channel. • From the mixing channel the effluent is pumped to the clarifiers. • The solids (primarily fibre) from the effluent is settled. • The sludge is removed and pumped into a belt press for the removal of excess water. • The sludge is then used as fuel in the Mill's Multi –Fuel Boiler (MFB). Should the MFB be off-line then the sludge is disposed of at an authorised landfill. 	
PRODUCTION PROCESS FLOW CHART ATTACHED	YES	X NO

IDENTIFICATION OF HAZARDS	Environmental Hazards: Dust, Leachate
WASTE CLASSIFICATION	HAZARDOUS
	GENERAL
	X

***A process flow chart must be attached to the process description**

RISK ASSESSEMENT WITHOUT MITIGATION

Activity	Risk Description	Environmental receptors	Impact	Assessment of the risk				
				Probability	Magnitude	Duration	Scale	Significance
Storage	Fire risk	Air	Deterioration of local air quality	3	4	1	1	18
	Accidental spillage into the environment	Soil Surface water	Soil contamination Contamination transported to surface water	3 2	4 4	3 3	1 2	24 18
Leachate from stockpiled material during rainfall		Groundwater	Percolation into groundwater	2	4	2	2	16
		Soil	Soil contamination	4	6	3	1	40
		Surface water	Contamination transported to surface water	2	4	3	2	18
		Groundwater	Percolation into groundwater	2	4	3	2	18

Activity	Risk Description	Environmental receptors	Impact	Assessment of the risk				
				Probability	Magnitude	Duration	Scale	Significance
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 Surface water	Soil contamination Contamination transported to surface water	3 2	4 4	3 3	2 2	27 18
Processing	Accidental spillage into the environment	Groundwater	Percolation into groundwater	3	4	3	2	27
		Soil	Soil contamination	3	4	3	1	24
		Surface water	Contaminated stormwater transported to surface water	2	4	3	2	18
Use as landfill cover material	Leachate generation during rainfall	Groundwater	Percolation into groundwater	2	4	3	2	18
		Soil	Soil contamination	3	4	3	1	24
		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
		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, RAFIO SAFOOR 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) RAFIO SAFOOR

Designation ENVIRONMENTAL MANAGER

Signature 

Date 20-2-2020 Place DURBAN

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