



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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

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| APPLICANT | Sappi Southern Africa Limited – Ngodwana Mill |
| WASTE STREAM OR PORTION OF A WASTE STREAM TO BE EXCLUDED FROM THE DEFINITION OF WASTE | Biomass – Fibre sludge |
| BENEFICIAL USE/S | Construction material |
| | Fuel rods |
| | Landfill capping/cover material |
| | Compost |
| | Moulding |
| | Mulching |
| WASTE GENERATING FACILITY OR FACILITIES | |
| PHYSICAL ADDRESS OF FACILITY OR FACILITIES | Sappi Ngodwana Mill, N4 Highway, Ngodwana, 1209 |
| GPS CO-ORDINATES OF WASTE GENERATING FACILITY OR FACILITIES | 25°34'41.1" Latitude 30°39'36.1" Longitude |
| CONTACT PERSON | |
| NAME | Jabu Tlou |
| ADDRESS | Sappi Ngodwana Mill, N4 Highway, Ngodwana, 1209 |
| EMAIL ADDRESS | Jabu.Tlou@sappi.com |

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|--|---|--|
| TELEPHONE | +27(0)13 734 6493 | |
| * DETAILED DESCRIPTION OF WASTE GENERATING PROCESS | Fibre sludge from belt press or flocculation. Fibres recovered from the waste water as a sludge | |
| PRODUCTION PROCESS FLOW CHART ATTACHED | YES <input checked="" type="checkbox"/> | NO <input type="checkbox"/> |
| WASTE CLASSIFICATION | HAZARDOUS <input type="checkbox"/> | GENERAL <input checked="" type="checkbox"/> |
| IF WASTE IS HAZARDOUS LIST THE HAZARDS OF THE WASTE | | |
| *A process flow chart must be attached to the process description | | |

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 | Soil | Soil contamination | 3 | 4 | 3 | 2 | 24 |

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

$$\text{Significance Points (SP)} = (\text{Magnitude} + \text{Duration} + \text{Scale}) \times \text{Probability}$$

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, Jabu Tlou 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) Jabu Tlou

Designation Risk Manager _____

Signature  _____

Date 11/02/2020 Place Ngodwana

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