



# environmental affairs

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

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

|  |  |
|--|--|
| <b>APPLICANT</b>                                     | Enstra Paper Mill                                      |
| <b>WASTE STREAM OR PORTION OF A WASTE STREAM</b>     | Biomass  |
| <b>BENEFICIAL USE/S</b>                              | Compost  |
|  | Soil conditioner                                       |
| <b>WASTE GENERATING FACILITY</b>                     | Enstra Paper Mill                                      |
| <b>PHYSICAL ADDRESS OF FACILITY</b>                  | East Geduld Road, Springs                              |
| <b>GPS CO-ORDINATES OF WASTE GENERATING FACILITY</b> | Latitude: 26° 20' 43.50"S ; Longitude: 28° 44' 00.96"E |
|  | Latitude: 26° 20' 89.02"S ; Longitude: 28° 44' 29.29"E |
|  | Latitude: 26° 20' 29.78"S ; Longitude: 28° 44' 78.24"E |
|  | Latitude: 26° 20' 73.17"S ; Longitude: 28° 44' 91.03"E |
| <b>CONTACT PERSON</b>                                |  |

|  |   |                |
|--|---|----------------|
| <b>NAME</b>  | Carol Le Roux   |                |
| <b>ADDRESS</b>   | East Geduld Road, Springs, 1649   |                |
| <b>EMAIL ADDRESS</b>   | Carol.LeRoux@enstrpaper.co.za   |                |
| <b>TELEPHONE</b>   | 087 286 6006  |                |
| <b>* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS</b>                | The mill uses recycled carboards termed K3 and K4 waste to generate packaging grades and fully bleached paper to manufacture tinted and speciality paper. The rejects from the paper machines are channelled to the primary clarifier for settlement. The underflow which is mainly fibre is recovered. |                |
| <b>PRODUCTION PROCESS FLOW CHART ATTACHED</b>                            | <b>YES</b>  | <b>NO</b>      |
| <b>IDENTIFICATION OF HAZARDS</b>   | <b>X</b>  |                |
| <b>WASTE CLASSIFICATION</b>  | <b>HAZARDOUS</b>  | <b>GENERAL</b> |
| <b>*A process flow chart must be attached to the process description</b> |   |                |



## 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           |
|                | 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           |
| Transportation | Airborne material                                 | Groundwater             | Percolation into groundwater                         | 2                      | 4         | 3        | 2     | 18           |
|                |   | 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           |
|                |   | Soil                    | Soil contamination                                   | 3                      | 4         | 3        | 2     | 24           |

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

Designation Gap SUEO & HFD Manager

Signature [Signature]

Date 03/07/2019 Place SRCINGS

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