environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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

APPLICANT	BADER SA (Pty) Ltd
WASTE STREAM OR PORTION OF A WASTE STREAM TO BE EXCLUDED FROM THE DEFINITION OF WASTE	Wet Blue Shavings Wet White Shavings Effluent Sludge (waste water sludge)
BENEFICIAL USE/S	Bader SA is doing trials to find a way to divert the main portion of our waste (Leather shavings and Effluent sludge) away from Landfill to the benefit of the Environment by reducing over-utilization of landfill.
	Wet White Leather shavings and effluent sludge will be used as raw material in Fertilizer / Composting and Wet Blue shavings will be used as Absorbent material in Spill kits.
	The re-use of leather shavings and effluent sludge will divert +/ - 200 tons of waste from landfill on a monthly basis
	The projects will be community based where possible to uplift and assist smaller business to grow and prosper. Please refer to cover letter for the application.
WASTE GENERATING FACILITY OR FACILITIES	BADER SA (Pty) Ltd
PHYSICAL ADDRESS OF FACILITY OR FACILITIES	95 Hendrik van Eck street
	Rosslyn
	0200
GPS CO-ORDINATES OF WASTE GENERATING FACILITY OR FACILITIES	4 Corners of Bader SA (waste generating site) 1 25° 37' 55" Latitude; 28° 5' 1.91" Longitude 2 25° 37' 48" Latitude; 28° 4' 55.01" Longitude 3 25° 37' 52" Latitude; 28° 4' 49.31" Longitude 4 25° 38' 0.77" Latitude; 28° 4' 55.67" Longitude
CONTACT PERSON	
NAME	Marinda de Beer / Heleen Manley
ADDRESS	95 Hendrik van Eck street, Rosslyn, 0200

EMAIL ADDRESS	Marinda.debeer@bader-leather.com / Heleen.manley@bader-leather.com	
TELEPHONE	012 797 7100 / 066 132 7375	
*** DETAILED DESCRIPTION OF WASTE GENERATING PROCESS**	Leather shaving waste generation: Leather is shaved, buffed, split and trimmed to meet customer size and quality requirements. Effluent sludge waste generation: Re-tanning and finishing of leather produce waste water that is treated to within the local by-law limits for discharge into the municipal sewer which generate effluent sludge that needs to be disposed.	
PRODUCTION PROCESS FLOW CHART ATTACHED	**YES**	**NO**
WASTE CLASSIFICATION	**HAZARDOUS**	**GENERAL**
IF WASTE IS HAZARDOUS LIST THE HAZARDS OF THE WASTE	**Waste classifications done by Enviroserv accredited LAB** Wet Blue Shavings: Type 1 as per SANS 10234 classification – was classified **as a Mix** in the Hazardous bin, Re-classification in progress. 1. Mixed Leather Shavings classifies as hazardous as Chromium is present at 2.4% which exceeds the limit of 1.0% for both acute toxicity and skin sensitization 2. An SDS is required for storage, transport and disposal 3. Mixed Leather Shavings assesses as a Type 1 waste due to the total concentration of Sb 4. The waste has a landfill restriction since the pH of the waste was 5.19. 5. Treatment with lime is required toraise the pH Wet White Shavings: Type 3 as per SANS 10234 classification: 1. White Leather Shavings classifies as non-hazardous 2. An SDS is not required for storage, transport and disposal 3. The waste assessed as Type 3 since the total concentrations were below the TCT1 thresholds 4. Type 3 waste may be disposed at a licensed Class A landfill or a licensed Class B or licensed Class C landfill 5. The sample triggers the landfill restriction for pH as the pH of the sample is less than 6 pH units 6. EnviroServ can treat the pH with lime 7. The treated waste may be disposed at EnviroServ's Holfontein landfill which is a licensed Class A landfill WWT Sludge: Type 3 as per SANS 10234 classification 1. Effluent Sludge classifies as non-hazardous since the concentration of elements is below the SANS 10234 hazards thresholds 2. An SDS is not required 3. The waste assesses as Type 3 since the inorganic elements and compounds are below the TCT1 and LCT1 thresholds listed in GN R635 4. Type 3 waste may be disposed at a licensed H:H or H:h landfill (equivalent to a Class A landfill) or a licensed GLB+ landfill (equivalent to a Class B or Class C landfill depending on the engineering) 5. The waste triggers the landfill restriction for	
***A process flow chart must be attached to the process description**		

RISK ASSESSEMENT WITHOUT MITIGATION

Activity	Risk Description	Environmental Receptors	Assessment of Risk					Significance
			Impact	Probability	Magnitude	Duration	Scale	
Storage	Accidental spillage into environment	Soil	Soil contamination	2	2	1	1	8
		Surface water	Contamination transported to surface water	2	2	2	1	10
		Ground water	Percolation into groundwater	2	2	2	2	12
	Leachate from stockpiled material during rainfall	Soil	Soil contamination	2	2	2	1	10
		Surface water	Contamination transported to surface water	2	2	2	1	10
		Ground water	Percolation into groundwater	2	2	2	2	12
	Air borne particles	Air	Deterioration of local air quality	1	2	1	1	8
Transportation	Air borne particles	Air	Deterioration of local air quality	1	2	1	1	8
	Accidental spillage into the environment	Soil	Soil contamination	2	2	2	1	10
		Surface water	Contamination transported to surface water	2	2	2	1	10
		Ground water	Percolation into groundwater	2	2	2	2	12

Activity	Risk Description	Environmental Receptors	Assessment of Risk					Significance
			Impact	Probability	Magnitude	Duration	Scale	
Storing shavings or Sludge re-use facility	Windblown Shavings	Air	Deterioration of local air quality	1	2	1	1	4
		Visual Impact	Poor Housekeeping	3	4	1	1	18
	Spillage during moving of Shavings / Sludge from truck / bin to storage area	Soil	Soil contamination	2	2	2	1	10
		Surface water	Contamination transported to surface water	2	2	2	1	10
		Ground water	Percolation into groundwater	2	2	2	2	12
Re-use shavings or Sludge re-use facility	Windblown Shavings when being used	Air	Deterioration of local air quality	1	2	1	1	4
		Visual Impact	Poor Housekeeping	3	4	1	1	18
	Spillage during moving of Shavings / Sludge	Soil	Soil contamination	2	2	2	1	10
		Surface water	Contamination transported to surface water	2	2	2	1	10
		Ground water	Percolation into groundwater	2	2	2	2	12

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, M de Beer 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) Marinda de Beer

Designation SHERQ Manager.

Signature MdBeer

Date 10/10/2023 Place Rosslyn.

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