



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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

APPLICANT	Mpact Operations (Pty) Limited, Piet Retief Mill
WASTE STREAM OR PORTION OF A WASTE STREAM	Ash from Combustion
BENEFICIAL USE/S	Landfill cover material, brick making
WASTE GENERATING FACILITY	Mpact Piet Retief Mill
PHYSICAL ADDRESS OF FACILITY	Vroegeveld Farm, Ermelo Piet Retief Road, Piet Retief
GPS CO-ORDINATES OF WASTE GENERATING FACILITY	Latitude: 26° 56' 15.36"S Longitude: 30° 45' 57.72"E
CONTACT PERSON	
NAME	Johan Viviers
ADDRESS	PO Box 290, Piet Retief, 2380

EMAIL ADDRESS	jvivers@mpact.co.za		
TELEPHONE	017 826 9012		
* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS	Boilers are used to generate steam and electricity for pulp and paper production from coal. Ash is generated through the combustion process. The coal ash is cooled and used as cover material for the landfill site. This use is licenced. The ash is also sent to a local brick making business.		
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	Accidental spillage into the environment	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
Transportation	Leachate from stockpiled material during rainfall (no stockpiling for landfill. Only stock piling for brick making)	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
Transportation	Windblown ash (ash from process is wet)	Air	Deterioration of local air quality	3	4	2	2	24
		Air	Deterioration of local air quality	3	4	2	2	24
		Soil	Soil contamination	3	4	3	2	27

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

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.
+	An impact that is likely to result in positive consequences/effects

I, Richard Wass 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) Richard D. Wass

Designation General Manager

Signature 

Date 31/10/18 Place Pretoria

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