



**forestry, fisheries
& the environment**

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

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

File Reference Number:
NEAS Reference Number:
Date Received:

(For official use only)

12/9/11

Risk Assessment for an application for exclusion of waste stream or portion of waste stream in terms of the National Environmental Management: Waste Act, 2008 (Act No.59 of 2008), as amended.

Kindly note that:

1. This form is current as of 01 April 2021. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
2. The information must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.
3. Incomplete forms (including information as required in the application form) may be returned to the applicant for revision and the inclusion of additional information.
4. Unless protected by law, all information filed in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.

BACKGROUND INFORMATION	
APPLICANT	Ingrain SA
CONTACT PERSON	Andreas Machinini
NAME	Andreas Machinini
ADDRESS	Ingrain SA - Kliprivier Mill Blesboklaagte 181 Daleside, Randvaal Gauteng, South Africa.
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WASTE GENERATING FACILITY OR FACILITIES						
PHYSICAL ADDRESS OF FACILITY OR FACILITIES	Ingrain SA - Kliprivier Mill Blesboklaagte 181 Daleside, Randvaal Gauteng, South Africa.					
GPS CO-ORDINATES AT CORNERS OF WASTE GENERATING FACILITY OR FACILITIES	LATITUDE			LONGITUDE		
	26°	28'	12.5"	28°	07'	40.8"
	26°	28'	10.9"	28°	0.8'	09.4"
	26°	28'	26.0"	28°	0.7'	41.6"
WASTE STREAM OR PORTION OF A WASTE STREAM TO BE EXCLUDED FROM THE DEFINITION OF WASTE	Boiler Ash					
BENEFICIAL USE/S	Brick/block making and Landfill Cover material					

WASTE GENERATING PROCESS		
DETAILED DESCRIPTION OF WASTE GENERATING PROCESS ¹	Ash from boilers-see attached process chart	
PRODUCTION PROCESS FLOW CHART ATTACHED	YESX	NO
WASTE CLASSIFICATION	HAZARDOUS	GENERAL
IF HAZARDOUS LIST THE HAZARDS OF THE WASTE		

¹ A process flow chart must be attached with this form for the process description

RISK ASSESSMENT WITHOUT MITIGATION

Activity	Risk Description	Environmental receptors	Impact				Assessment of impact criteria	
			Probability	Magnitude	Duration	Scale		
Ash production and storage operations – Generator site	Windblown ash	Ambient air	Deterioration of local air quality	2	4	2	1	14
	Leachate from stock pile material	Ground water	Percolation into ground water	2	4	2	1	14
	Spillage	Surface water	Contamination transported into surface water	3	4	1	2	21
Ash Transportation	Airborne ash	Air	Deterioration of local air quality	3	4	2	2	24
	Accidental spillage	Surface water	Contamination transported into surface water	2	2	3	2	14
		Ground water	Percolation into ground water	2	2	3	2	14
		Soil	Soil contamination	3	4	3	1	24

Ash handling/ processing in the blocks and bricks manufacturing facility	Accidental spillage	Surface water	Contamination transported into surface water	2	4	2	2	16
	Accidental spillage	Soil	Soil contamination	3	4	3	1	24
Ash handling/ processing in the blocks and bricks manufacturing facility	Leachate from stockpiled material	Ground water	Percolation into ground water	3	4	2	1	21
	Windblown ash	Air	Deterioration of local air quality	2	4	2	2	16
		Visual	Visual	Visual impact from windblown waste	2	2	2	2
The use of ash as raw material in the bricks and blocks manufacturing industry	Negative ecological impacts associated with waste sent to landfill	Land/Soil	Positive ecological benefits: Waste reuse and diverting landfill waste	+	+	+	+	+
	Economic liabilities associated with waste disposal overheads	Land/Soil - Public	Positive economic and public relations benefits	+	+	+	+	+

	Availability and economic factors associated with sourcing suitable blocks and bricks making material	Land/Soil - Public	Positive economic benefits Available ash used to supplement soil being used for blocks and bricks making	+	+	+	+	+	+
	Potential leaching to groundwater, surface water-run-off and bio-accumulation in aquatic life	Humans - aquatic life: Localized groundwater and surface water users, plants and aquatic ecosystem and food chain	Negative ecological hazards associated with surface and groundwater impacts	2	4	4	4	2	20
Ash use as supplementary landfill site capping material	Potential ash dust impacts due to wind-blown ash	Ambient air -Local community	Negative localized ambient air quality impacts from ash dust	2	4	2	2	2	20
	Potential fire hazards and emanation to ambient air. Passive volatilization and production of explosive mixtures or toxic gases in a landfill environment.	Ambient Air - Humans, Plants and Animals	Positive: Ash suitable alternative capping material as the stream does not meet the GHIS application criteria for classification as flammable.	+	+	+	+	+	+

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 – 10 years)
6 – Moderate	3 – Medium term (12 months to 5 years)
4 – Low	2 – Short term (< 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 – Improbably
0 – None	0 – None

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 the impact to occur. The potential impact could be most likely to occur, unlikely, etc.

Assesment of Significance of Impact

Significance rating of the potential impact illustrates the importance of the impact itself. The size of the 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 an impact, the following method should be used:

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

The values of S must then be categorised as follows:

RATING		DESCRIPTION
SP > 60	High significance	An impact which could influence the decision about whether or to proceed with the activities regardless of any possible mitigation
SP 30 - 60	Moderate 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	Low 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 a positive consequence/effect

I, ANDREAS MACHINERY (the Applicant) hereby declare that I have read the completed 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).



Signature of the applicant²/ Signature on behalf of the applicant:

ANDREAS MACHINERY

Name of Applicant:

GENERAL MANAGER

Designation

06 / 10 / 2021

Date:

² If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority.