



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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

APPLICANT	Donovan Abrahams
WASTE STREAM OR PORTION OF A WASTE STREAM TO BE EXCLUDED FROM THE DEFINITION OF WASTE	Boiler ash
BENEFICIAL USE/S	Brick making
	Block making
	Landfill cover
WASTE GENERATING FACILITY OR FACILITIES	
PHYSICAL ADDRESS OF FACILITY OR FACILITIES	Harrison McCain Road, Delmas, Mpumalanga
	2210
GPS CO-ORDINATES OF WASTE GENERATING FACILITY OR FACILITIES	S 26°7'38.857"
	E 28°40'44.735"
CONTACT PERSON	
NAME	Ansie van Wijk
ADDRESS	Harrison McCain Road, Delmas, Mpumalanga

EMAIL ADDRESS	Ansuretha.WIID@mccain.co.za		
TELEPHONE	013 665 8682		
* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS	Coal is fed into coal fired boilers where it is combusted. The boilers produce steam for the manufacture of potato chips for human consumption. The combusted coal produces ash, known as boiler ash. The ash is collected in a wet ash trough and delivered by a wet ash conveyor into a skip. Fly ash in the flue gas is collected in a grit arrestor and emptied into the wet ash system. The collection of wet ash into the skip eliminates the possibility of spillage or air borne ash at the site where it is generated and during transportation to the block/brick manufacturer.		
PRODUCTION PROCESS FLOW CHART ATTACHED	<table border="1"> <tr> <td>YES <input checked="" type="checkbox"/></td> <td>NO <input type="checkbox"/></td> </tr> </table>	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>		
WASTE CLASSIFICATION	<table border="1"> <tr> <td>HAZARDOUS <input type="checkbox"/></td> <td>GENERAL <input checked="" type="checkbox"/></td> </tr> </table>	HAZARDOUS <input type="checkbox"/>	GENERAL <input checked="" type="checkbox"/>
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 ASSESSMENT WITHOUT MITIGATION

Activity	Risk Description	Environmental Receptors	Impact	Assessment of the risk				
				Probability	Magnitude	Duration	Scale	Significance
Manufacturing of bricks and blocks	Accidental spillage	Soil	Soil contamination	4	6	2	2	40
	Leachate from stockpile material	Ground water	Percolation into groundwater	3	4	3	2	27
	Windblown ash	Air	Deterioration of air quality	4	6	1	1	32
Transport	Airborne ash	Air	Deterioration of air quality	2	4	1	2	14
	Accidental spillage	Surface water and soil	Soil and surface water Contamination	2	4	2	2	16
Storage at generation facility	Windblown ash	Air	Deterioration of air quality	1	4	1	1	8
	Leachate from stockpile material	Ground water	Percolation into groundwater	1	4	3	2	9
	Spillage	Surface water and soil	Soil and surface water contamination	1	4	1	1	6

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, Donovan Abrahams 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) Donovan Abrahams

Designation Plant manager

Signature 

Date Delmas 21/4/2020 Place Delmas.

FOR OFFICE USE ONLY

Date Received			
Decision Taken	Authorised	<input type="checkbox"/>	Not Authorised (provide reasons)
Reference Number			