



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
ENVIRONMENTAL AFFAIRS
ENVIRONMENTAL CONTROL
DIRECTORATE
DATE: 2018/01/10
Rachel

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

APPLICANT	Mpact Operations (Pty) Limited Corrugated, Felixton Mill
WASTE STREAM OR PORTION OF A WASTE STREAM	Ash from Combustion Landfill cover material
BENEFICIAL USES	Brickmaking
	Block making
WASTE GENERATING FACILITY	Mpact Felixton Mill
PHYSICAL ADDRESS OF FACILITY	Felixton Industrial Area, Grantham Properties, Felixton, City of Umhlatuze, King Cetshwayo District, KZN
GPS CO-ORDINATES OF WASTE GENERATING FACILITY	Latitude: 28°50'13.77"S Longitude: 31°53'45.73"E
CONTACT PERSON	

NAME	Siyabonga Buthelezi		
ADDRESS	Private Bag X05, Felixton		
EMAIL ADDRESS	sbuthlezi@mpact.co.za		
TELEPHONE	Office: 035 791 6081 Mobile: 063 143 5456		
* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS	Boilers are used to generate steam and electricity for pulp and paper production. Ash is generated through the combustion process. Fine ash (fly ash) is extracted from the flue gas using multi-cyclone grit arrestors. Ash particles that are too large to be entrained in the flue gas, drop to the bottom of coal combustion installations where it is removed as coarse ash.		
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. See attached Annexure A

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
		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	Air	Deterioration of local air quality	3	4	2	2	24
		Windblown ash	Deterioration of local air quality	3	4	2	2	24
		Air borne ash	Deterioration of local air quality	3	4	2	2	24
Transportation	Accidental spillage into the environment	Soil	Soil contamination	3	4	3	2	27
		Surface water	Contamination transported to surface water	2	4	3	2	18

Activity	Risk Description	Environmental receptors	Impact	Assessment of the risk				
				Probability	Magnitude	Duration	Scale	Significance
Manufacturing	Windblown ash	Groundwater	Percolation into groundwater	3	4	3	2	27
		Air	Deterioration of local air quality	3	4	2	2	24
		Visual	Visual impact from windblown waste	3	4	2	2	24
	Spillage during mixing process	Air	Deterioration of local air quality	3	4	2	2	24
		Soil	Soil contamination	3	4	3	1	24
		Surface water	Contamination transported to surface water	2	4	3	2	18
Leachate generation during rainfall	Groundwater	Percolation into groundwater	2	4	3	2	18	
	Soil	Soil contamination	3	4	3	1	24	
	Surface water	Contamination transported to surface water	2	4	3	2	18	
Use as landfill cover material		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:

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

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, BRIAN SWIFT 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) BRIAN SWIFT

Designation MILL MANAGER

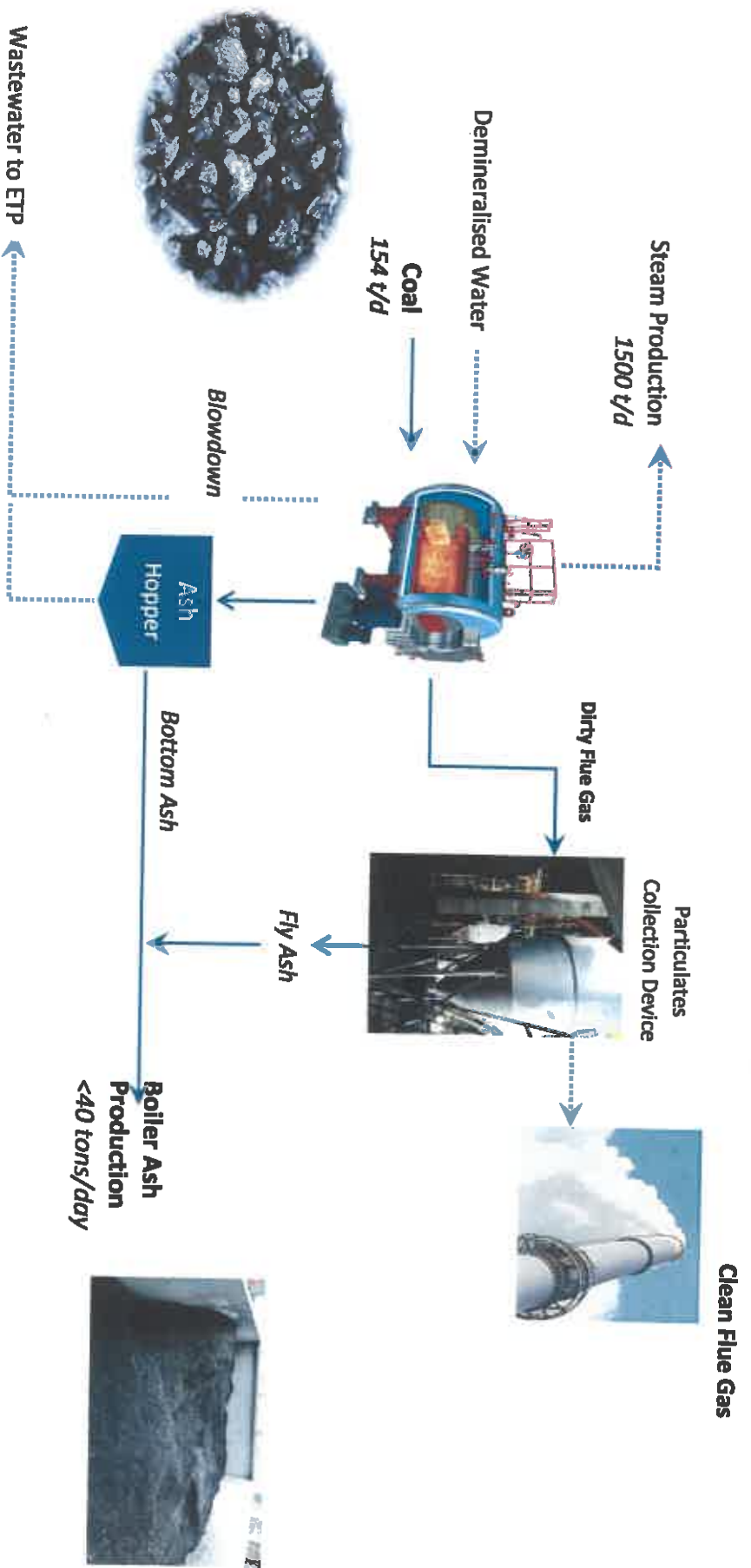
Signature 

Date 3 SEPT 2018 Place FENIXTON

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

Annexure A: Boiler House Process flow chart



Inputs		Outputs		Waste Streams	
Description	Amounts, Max	Description	Amounts, Ave	Description	Amounts, Ave
Coal	154 tons/day	Steam Production	1500 tons/day	Boiler Ash (Bottom Ash + Fly Ash)	40 tons/day
Water	700 m ³ /day			Wastewater	