



## environmental affairs

Department:  
Environmental Affairs  
**REPUBLIC OF SOUTH AFRICA**

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

<b>APPLICANT</b>	Nokeng Fluorspar Mine (RF) (Pty) Ltd
<b>WASTE STREAM OR PORTION OF A WASTE STREAM TO BE EXCLUDED FROM THE DEFINITION OF WASTE</b>	Coal ash
<b>BENEFICIAL USE/S</b>	Brick making
	Block making
<b>WASTE GENERATING FACILITY OR FACILITIES</b>	
<b>PHYSICAL ADDRESS OF FACILITY OR FACILITIES</b>	Portion 11 of Kromdraai 209 JR
	Rust de Winter
<b>GPS CO-ORDINATES OF WASTE GENERATING FACILITY OR FACILITIES</b>	25°17'4.83"S
	28°35'56.31"E
<b>CONTACT PERSON</b>	
<b>NAME</b>	Jurie Snyman
<b>ADDRESS</b>	Portion 11 of Kromdraai 209 JR, Rust de Winter

<b>EMAIL ADDRESS</b>	juriesnyman@nokengmine.co.za	
<b>TELEPHONE</b>	012 161 0600	
<b>* DETAILED DESCRIPTION OF WASTE GENERATING PROCESS</b>	<p>Coal is fed onto chain conveyor and burned in order to heat up water to produce steam that is used in the flotation process of producing fluorspar.</p> <p>Spent coal ash is then cooled, washed and stockpiled for re-use for the brickmakers.</p>	
<b>PRODUCTION PROCESS FLOW CHART ATTACHED</b>	<b>YES</b> ✓	<b>NO</b>
<b>WASTE CLASSIFICATION</b>	<b>HAZARDOUS</b> ✓	<b>GENERAL</b>
<b>IF WASTE IS HAZARDOUS LIST THE HAZARDS OF THE WASTE</b>		
<b>*A process flow chart must be attached to the process description</b>		

**RISK ASSESSEMENT WITHOUT MITIGATION**

Activity	Risk Description	Environmental Receptors	Assessment of Risk					Significance
			Impact	Probability	Magnitude	Duration	Scale	
Loading, transporting, screening and crushing of ash	Dust generation with loading, transport, crushing and screening	Air quatility impacts on photosysthesysing plants, animals and people	lower production rate in plants, Respiratory tract nuisance in animals and people	3	2	1	2	15

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
<b>SP &gt;60</b>	Indicates <b>high</b> environmental significance	An impact which could influence the decision about whether or not to proceed with the activities regardless of any possible mitigation.
<b>SP 30 – 60</b>	Indicates <b>moderate</b> 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.
<b>SP &lt;30</b>	Indicates <b>low</b> environmental significance	Impacts with little real effect and which will not have an influence on or require modification of the activities.
<b>+</b>	<b>Positive impact</b>	An impact that is likely to result in positive consequences/effects

I, \_\_\_\_\_ 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) \_\_\_\_\_

Designation \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_ Place \_\_\_\_\_

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