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WEST COAST DISTRICT MUNICIPALITY**

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**APPLICATION FORM FOR ATMOSPHERIC EMISSION LICENCE / PROVISIONAL ATMOSPHERIC
EMISSION LICENCE IN TERMS OF CHAPTER 5 OF THE NATIONAL ENVIRONMENTAL
MANAGEMENT: AIR QUALITY ACT, 2004 (ACT NO. 39 OF 2004)**

Name of Enterprise: _____

Declaration of accuracy of information provided:

Application for an atmospheric emission licence / provisional atmospheric emission licence as envisaged in chapter 5 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004).

I, _____ [*delegated by the Accounting Officer*],
declare that the information provided in this application or attached to the application is, to the best of my knowledge, in all respects factually true and correct. I am aware that the supply of false or misleading information in the application form is a criminal offence in terms of section 51(1)(f) of the Act.

Signed at _____ on this _____ day of _____

SIGNATURE

CAPACITY OF SIGNATORY

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1 TYPE OF APPLICATION

	New Application		Transfer
	Renewal	X	Variation/Amendment/Review

Current APPA Permit / Atmospheric Emission Licence Number:	WC/WC/001
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2 ENTERPRISE INFORMATION

Enterprise Name	Transnet Port Terminals Saldanha
Trading As	Transnet Port Terminals Saldanha
Type of Enterprise, e.g. Company/Close Corporation/Trust, etc	State Owned Company
Company/Close Corporation/Trust Registration Number (Registration Numbers if Joint Venture)	1990/000900/06
Registered Address	Port of Saldanha
Postal Address	Port of Saldanha, Private Bag X8, Saldanha,7395
Telephone Number (General)	(022) 703 4958
Fax Number (General)	(022) 703 4952
Industry Type/Nature of Trade	Bulk Storage
Land Use Zoning as per Town Planning Scheme	Industrial
Land Use Rights if outside Town Planning Scheme	-

Responsible Person Name or Emission Control Officer (where appointed)	Theodore Petersen
Telephone Number	(022) 703 4951
Cell Phone Number	083 706 7710
Fax Number	(022) 703 4828
E-mail Address	Theo.petersen@transnet.net
After Hours Contact Details	083 706 7710

3 SITUATION AND EXTENT OF PLANT

3.1 Location and extent of plant

Physical Address of the Plant	Farm 1095 Saldanha and
Description of Site (Where No Street Address)	Port Terminal of Saldanha
Coordinates of Approximate Center of Operations	North-south: -33°00'44.74"S East-west: 17°99'92.29"E
Property Registration Number (Surveyor-General Code)	C04600000000118500000; C04600000000019600000; C04600000000019700008; C04600000000012700017; C04600000000012900005; C04600000000012700017
Extent (km ²)	0.69 km ²
Elevation Above Mean Sea Level (m)	0
Province	Western Cape
Metropolitan/District Municipality	West Coast District Municipality
Local Municipality	Saldanha Bay Municipality
Designated Priority Area	Not Applicable

3.2 Description of surrounding land use (within 5 km radius)

Provide a description of the surrounding land use within a 5 km radius, specifically noting the names and proximity of residential and commercial areas in relation to the site of the works.

The Transnet Bulk Storage Site is situated at the Port of Saldanha. Arcelor, Mittal Saldanha (Iron and Steel) is 2.78km to the north east of the site. A petroleum storage facility is situated 2.67km to the east of the site. Duferco Steel is situated 2km to the west of the site and is a steel processing plant. There is a railway line primarily supplying iron ore to the Bulk Iron Ore Terminal of Saldanha to the north of the plant. Namaqua Sands, a smelting operation is situated 6km to the north east of the plant. Farming is primarily undertaken 4 km to the north of the plant. There are light industrial areas situated approximately 1 km to the west and north west of the plant. The nearest residential area, Blue Water Bay, is situated 2km north west of the plant and the town Saldanha is 5km to the west of the plant. For the tippler 3 the site is bordered on the northern side by the road-over-rail bridge providing access to the west coast road just south of Salkor Yard (the marshalling yard) and on the southern side by the rail stop-block near the port jetty. The existing tipplers (Tipplers 1 and 2) are located just north of the stockpile area, which is adjacent to the port loading facility. The preferred location for tippler 3 is approximately 1.4 km north of the existing tipplers near the Saldanha steel factory ArcelorMittal.

Attach map(s), satellite image(s) or aerial photograph(s) detailing location of premises in relation to surrounding community.

4 NATURE OF PROCESS

4.1 Process description

Please provide a detailed description of the entire production process including reference to the overall balance sheet of inputs, outputs and emissions at the site of the works.

After the ore reaches Salkor shunting yard, trains are divided into rakes. The rakes are shunted further down the track to the tippers by a locomotive. One rake will enter the port at a time. The ore rail wagons are emptied into an enclosed receiving bin feeding hoppers. The iron ore is then transported by means of a conveyor belt to stacker/reclaimers where it is stacked in open stockpiles. The iron ore is stacked in different stockpiles according to its grade. The ore is reclaimed from the stock piles by means of a stacker/reclaimer and transported by conveyor belts to a ship loader. Here the ore is tipped through a chute into the hold of a ship. In order to comply with air quality regulations dust extraction and collection systems are fitted to each of the tippers. The dust extraction system is operating continuously while unloading operations are taking place. A closely fitting shroud is installed around the tippler drum with a number of suction pipes at the back or bottom of the shroud, sucking air and also any dust in the air, in from the sides of the tippler drum. This process applies to the two tippers already in operation as well as to the third tippler to be installed.

Listed activities

List all Listed Activities, as published in terms of section 21 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), proposed to be conducted at the premises in terms of this application:

Listed Activity Number	Category of Listed Activity	Sub-category of the Listed Activity	Name of the Listed Activity	Description of the Listed Activity
5	Mineral Processing, Storage and Handling	5.1	Storage and handling of ore.	Storage and handling of ore not situated on the premises of a mine or works as defined in the Mines Health and Safety Act, Act 29/1996.

Despite the repeal of the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965), list all Scheduled Process(es), as was or were set out in the Second Schedule of the repealed Atmospheric Pollution Prevention Act, 1965, currently conducted at the premises:

APPA Registration Certificate Number	Date of Registration Certificate	Scheduled Process Number	Scheduled Process Description
871	25 July 2004	59	Bulk Storage and Handling of Ore

4.2 Unit process

List all unit processes associated with the listed activities in operation at the premises by the atmospheric emission licence holder, highlighting unit processes proposed in respect of this application:

Unit Process	Unit Process Function	Batch or Continuous Process
Tippler	Iron ore rail trucks are emptied in the tippler for conveying to the raw material stockpiles.	Batch
Conveyors	A conveying system is used to transport ore to the stockpiles and from the stockpiles to the ship loaders.	Batch
Stockpiles	Iron ore Stockpiles are used to store iron ore transported from Sishen before the iron ore is loaded onto ships.	Continuous
Stacker/Reclaimer	Stacker reclaimers are used to place iron ore on stockpiles from the conveyors and for placing iron ore on the conveyors for ship loading.	Batch
Quality Assurance Station	Iron ore is quality checked before loading onto ships.	Batch
Ship Loaders	Ship loaders are used to load the iron ore from the conveyor system into the hold of ships.	Batch
Spilled ore	Spilled ore is collected and heaped on one stockpile. Ore (approx. 10 tons) is then screened annually by a mobile screening plant and added to existing stockpiles and forms part of normal operations	Batch and continuous

*Unit process means a single component (equipment) with identifiable inputs and outputs within a process flow. A series of unit processes make up the full manufacturing process, for example, boiler, furnace, distillation column, etc.

Please provide any other unit processes currently conducted at the site of works.

Name of the Unit Process	Description of the Unit Process

4.3 Hours of operation

Provide the hours of operation of all unit processes associated with the listed activities in operation at the premises by the atmospheric emission licence holder, highlighting unit processes proposed in respect of this application:

Unit Process	Operating Hours	Number of Days Operated per Year
Tippler	24 hours	365
Conveyors	24 hours	365
Stockpiles	24 hours	365
Stacker/Reclaimer	24 hours	365

QA Station	24 hours	365
Ship Loaders	24 hours	365

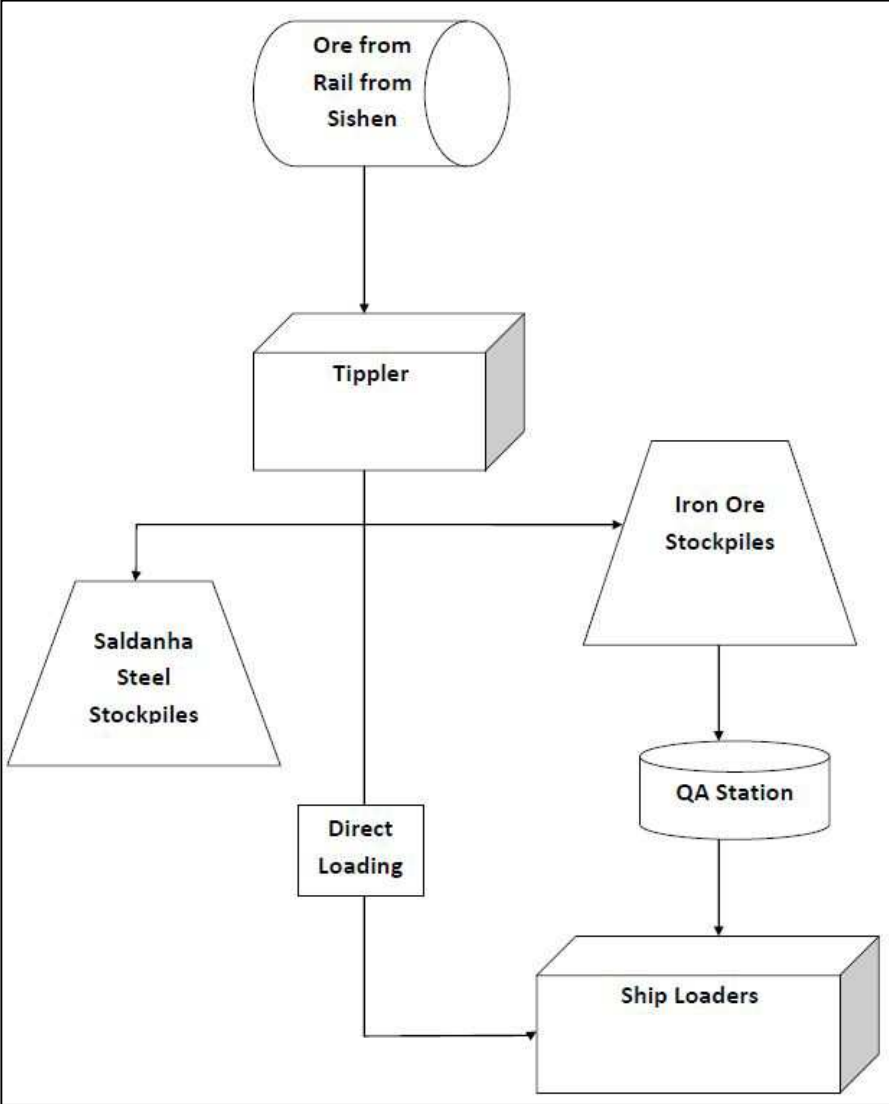
4.4 Graphical process information

Attach the following for the entire operation being undertaken at the site of the works:

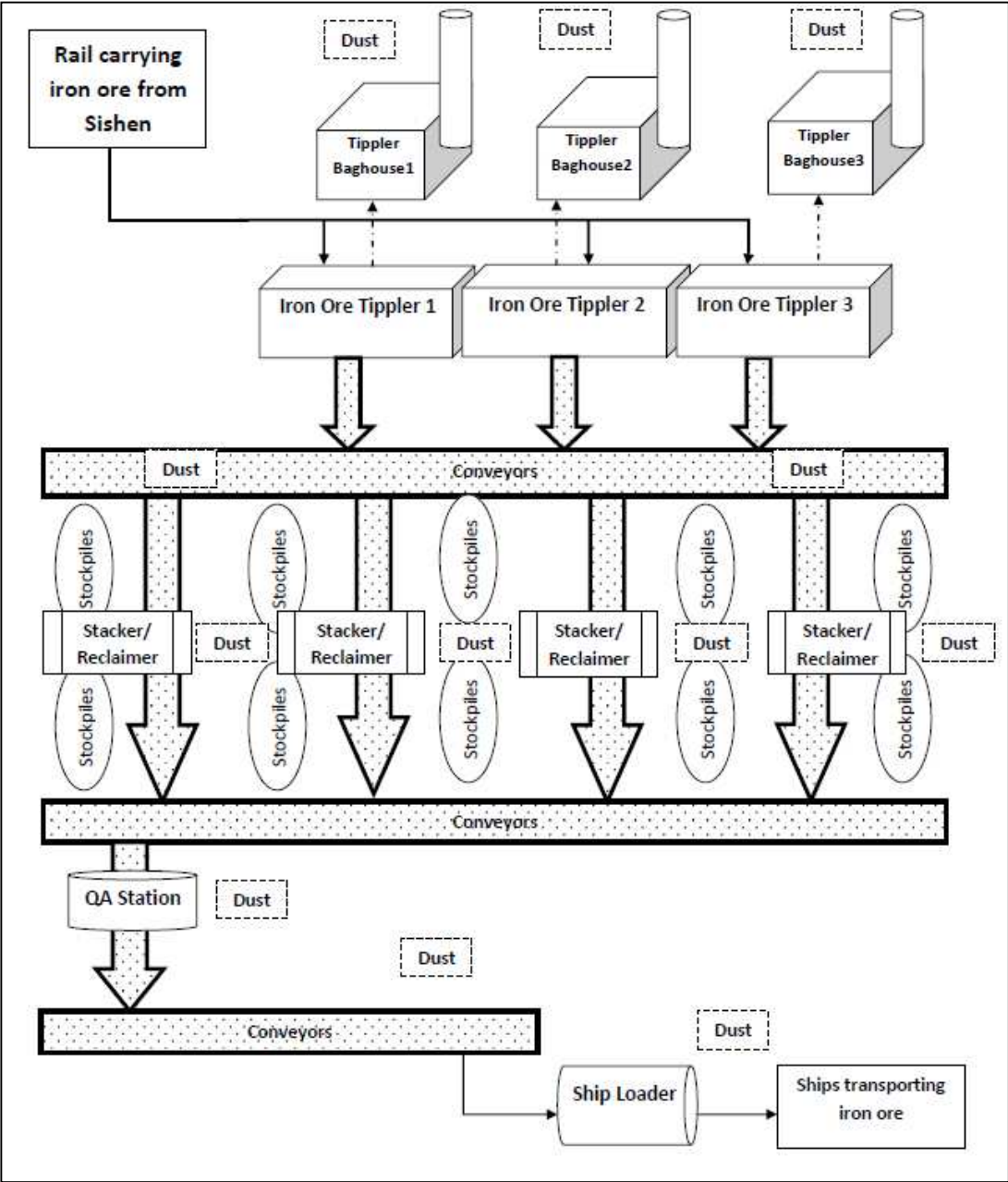
- Simplified block diagram with the name of each unit process in a block; showing links between all unit processes or blocks.
- Process flow chart(s) clearly indicating inputs, outputs and emissions at the site of works, including points of potential fugitive emissions and emergency releases.
- Site layout diagram (plan view and to scale) indicating location of unit processes, plants, buildings, stacks, stockpiles and roads (include true north arrow and scale).

NB: Indicate clearly on the above graphics the listed activity or activities applied for in this application. Alternatively, provide additional graphics for the listed activity or activities applied for.

Simplified Block Diagram

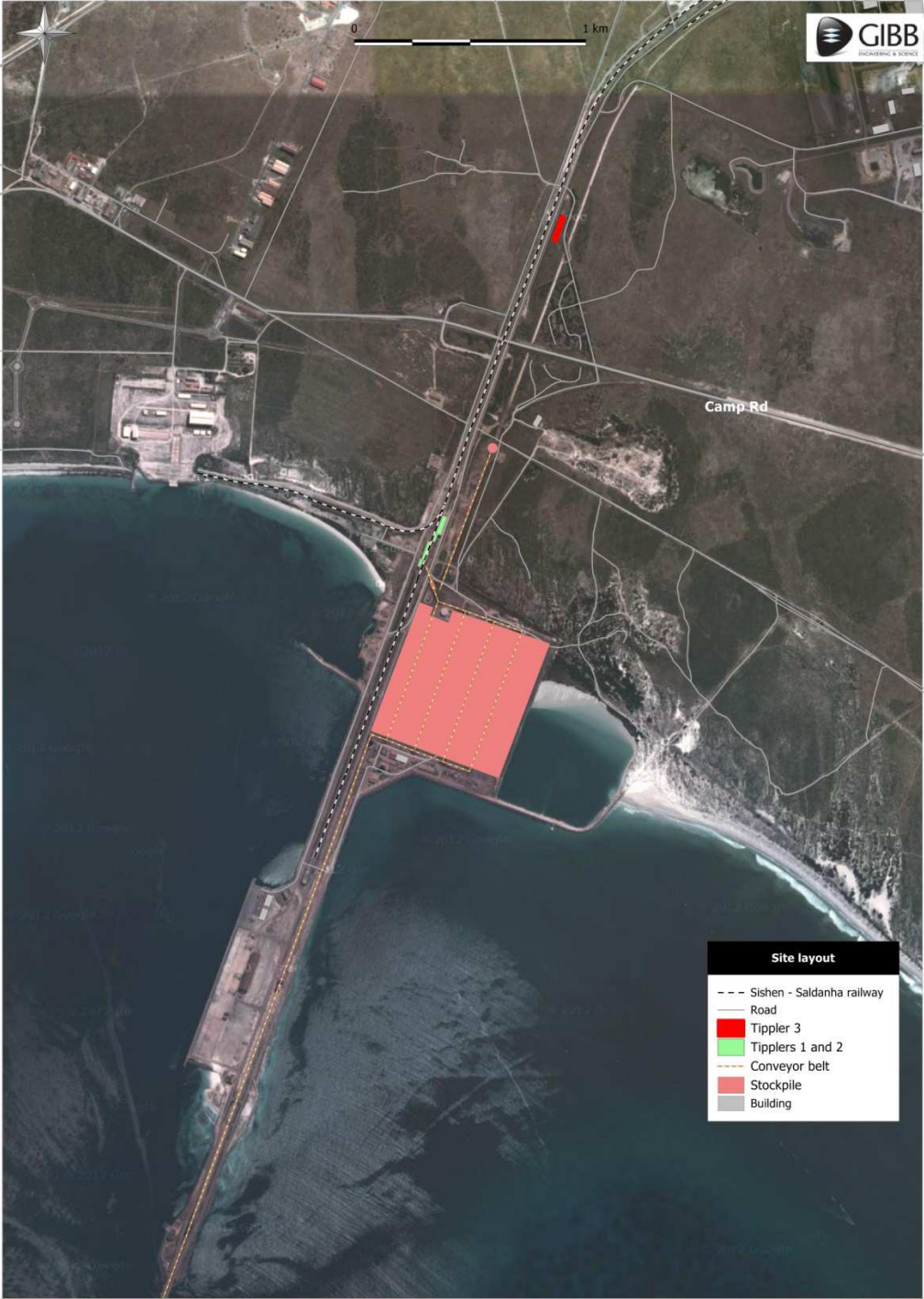


Process Flow Diagram



Site Layout Diagram

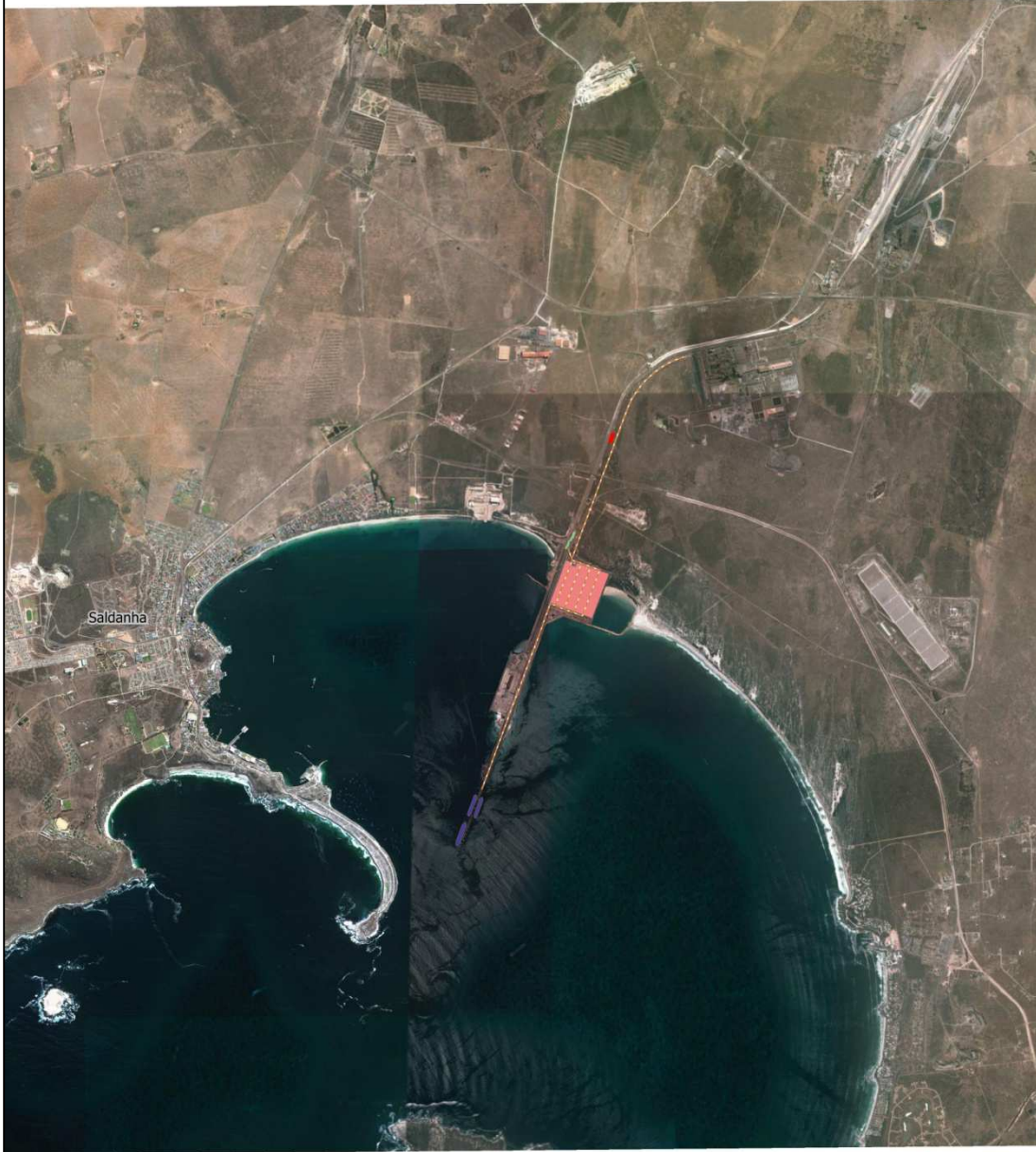
Site layout diagram (plan view and to scale) indicating location of unit processes, plants, buildings, stacks, stockpiles and roads (include true north arrow and scale)








Site Layout of a 5km radius



0 5 km



Port of Saldanha locality plan

-  Conveyor
-  Ships
-  Stockpiles
-  Tippler 1 and 2
-  Tippler 3

5 RAW MATERIALS AND PRODUCTS

Provide raw material information, production and by-production rates and emissions information.

5.1 Raw materials used

Raw Material Type	Maximum Permitted Consumption Rate (Quantity)	Design Consumption Rate (Quantity)	Actual Consumption Rate (Quantity)	Units (Quantity/Period)
Iron Ore	60	60	60	Million Tonnes per Annum (MTPA)

5.2 Production rates

Production Name	Maximum Production Capacity Permitted (Quantity)	Design Production Capacity (Quantity)	Actual Production Capacity (Quantity)	Units (Quantity/Period)
Iron Ore	60	60	60	Million Tonnes per Annum (MTPA)

By-Product Name	Maximum Production Capacity Permitted (Quantity)	Design Production Capacity (Quantity)	Actual Production Capacity (Quantity)	Units (Quantity/Period)

5.3 Materials used in energy sources

The applicant must specify the materials used in energy sources, namely, coal, oil, gas or wood.

Materials for Energy	Sulphur Content of the Material (%)	Ash Content of Material (%)	Maximum Permitted Consumption Rate (Quantity)	Design Consumption Rate (Quantity)	Actual Consumption Rate (Quantity)	Units (Quantity/Period)
Electricity	N/A	N/A	30	30	30	MVA

5.4 Sources of atmospheric emission (including all tiers of greenhouse gas)

Provide emissions averaging periods that correspond to the averaging periods as set out in the national ambient air quality standards published under Government Notice No. 1210, Gazette No. 32816 dated 24 December 2009, and/or the minimum averaging periods of the relevant pollutant in relation to its health impact.

5.4.1 Point source parameters

Unique Stack ID	Source Name	Latitude (decimal degrees)	Longitude (decimal degrees)	Height of Release Above Ground (m)	Height Above Nearby Building (m)	Diameter at Stack Tip / Vent Exit (m)	Actual Gas Exit Temperature (°C)	Actual Gas Volumetric Flow (m ³ /hr)	Actual Gas Exit Velocity (m/s)
1	Tippler Baghouse 1	-32°99'93.10"S	17°99'79.98"E	22	10	1.2	30°C	20547 m ³ /h	6 m/s
2	Tippler Baghouse 2	-32°99'85.57"S	17°99'86.15"E	16.5	0.6	1.9	30°C	20547 m ³ /h	6 m/s
3	Tippler Baghouse 3	-32°59'11"S	18°00'17 "E	16.5	0.6	1.9	30°C	20547 m ³ /h	6 m/s

*Point source means a single identifiable source and fixed location of atmospheric pollution, e.g. stack, chimney, etc.

5.4.2 Point Source Emissions

Provide emission values as being measured under normal conditions of 273 K, 101.3 kPa, specific oxygen percentage and dry gas.

As per 5.4.1 ID	Pollutant Name	Maximum Release Rate				Emissions Hours	Type of Emissions (Continuous / Routine but Intermittent / Emergency Only)
		(mg/Nm ³)	(mg/Am ³)	g/s	Averaging period		
1	PM ₁₀	20 (normal operation) and 25 (upset conditions such as start-up, maintenance, and shut-down conditions)	18 (normal) 23 (upset)	0.11 (normal) 0.14 (upset)	60 minutes	All day	Routine but Intermittent
2	PM ₁₀	20 (normal) 25 (upset))	18 (normal) 23 (upset)	0.11 (normal) 0.14 (upset)	60 minutes	All day	Routine but Intermittent
3	PM ₁₀	20 (normal) 25 (upset))	18 (normal) 23 (upset)	0.11 (normal) 0.14 (upset)	60 minutes	All day	Routine but Intermittent

As per 5.4.1 ID	Pollutant Name	Maximum Release Rate				Emissions Hours	Type of Emissions (Continuous / Routine but Intermittent / Emergency Only)
		(mg/Nm ³)	(mg/Am ³)	g/s	Averaging period		

5.4.3 Point source current emissions monitoring

Provide information on emission monitoring requirements.

As per 5.4.1 ID	Emission Sampling / Monitoring Method	Sampling Frequency	Sampling Duration	Measured Parameters
1	ISO 12141	Continuous	Continuous	Particulate Matter
2	ISO 12141	Continuous	Continuous	Particulate Matter
3	ISO 12141	Continuous	Continuous	Particulate Matter

5.4.4 Point source emission estimation information

As per 5.4.1 ID	Basis for Emission Rates
1	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
2	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
3	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency

5.4.5 Area and/or line source parameters

Unique Area Source ID	Source Name	Source Description	Latitude (decimal degrees) of SW corner	Longitude (decimal degrees) of SW corner	Height of Release Above Ground (m)	Length of Area (m)	Width of Area (m)	Angle of Rotation from True North (°)
3	Small Stockpile	Small Stockpile	-32°99'48.13"S	18°00'14.05"E	10	43	43	30°
4	100m width stockpile	100m width stockpile	-33°00'74.86"S	18°00'03.18"E	18	570	100	30°
5.1	Large stockpile	Large stockpile	-33°00'57.40"S	17°99'57.23"E	18	570	62	30°
5.2	Large stockpile	Large stockpile	-33°00'59.41"S	17°99'67.66"E	18	570	62	30°
5.3	Large stockpile	Large stockpile	-33°00'64.02"S	18°99'79.93"E	18	570	62	30°
5.4	Large stockpile	Large stockpile	-33°00'68.29"S	17°99'92.83"E	18	570	62	30°
5.5	Large stockpile	Large stockpile	-33°00'72.57"S	18°00'02.55"E	18	570	62	30°
6.1	Stacker reclaimers	Stacker reclaimers	-33°00'59.88"S	17°99'65.64"E	18	570	100	30°
6.2	Stacker reclaimers	Stacker reclaimers	-33°00'65.25"S	17°99'77.07"E	18	570	100	30°
6.3	Stacker reclaimers	Stacker reclaimers	-33°00'69.57"S	17°99'90.00"E	18	570	100	30°
6.4	Stacker reclaimers	Stacker reclaimers	-33°00'75.46"S	18°00'06.32"E	18	570	100	30°
7.1	Transfer Point 1	Transfer Point 1	-32°99'95.72"S	17°99'82.96"E	4	4	4	30°
7.2	Transfer Point 2	Transfer Point 2	-33°00'09.28"S	17°99'88.43"E	4	4	4	30°
7.3	Transfer Point 3	Transfer Point 3	-33°00'12.39"S	18°00'00.73"E	4	4	4	30°
7.4	Transfer Point 1B1	Transfer Point 1B1	-33°00'75.61"S	17°99'48.61"E	4	4	4	30°
8.1	Transfer Point 4	Transfer Point 4	-33°00'16.25"S	18°00'14.30"E	4	4	4	30°
8.2	Transfer Point 5	Transfer Point 5	-33°00'18.87"S	18°00'24.22"E	4	4	4	30°
9.1	Transfer Point 6	Transfer Point 6	-33°00'74.56"S	18°00'00.46"E	4	4	4	30°
9.2	Transfer Point 7	Transfer Point 7	-33°00'71.61"S	17°99'88.91"E	4	4	4	30°

Unique Area Source ID	Source Name	Source Description	Latitude (decimal degrees) of SW corner	Longitude (decimal degrees) of SW corner	Height of Release Above Ground (m)	Length of Area (m)	Width of Area (m)	Angle of Rotation from True North (°)
9.3	Transfer Point 1B2	Transfer Point 1B2	-33°02'68.43"S	17°98'63.63"E	7.8	11.3	4	30°
10.1	Transfer Point 8	Transfer Point 8	-33°00'66.66"S	17°99'76.23"E	3.3	8.4	4	30°
10.2	Transfer Point 9	Transfer Point 9	-33°00'62.45"S	17°99'64.18"E	16.7	15.6	4	30°
10.3	Transfer Point 10	Transfer Point 10	-33°02'99.41"S	17°99'56.89"E	14.18	12.0	4	30°
11.1	Ship Loader	Ship Loader	-33°02'99.63"S	17°98'44.03"E	12	5	5	30°
11.2	Ship Loader	Ship Loader	-33°02'98.63"S	17°98'53.99"E	12	5	5	30°
12.1	Paved Road	Paved Road	-33°00'15.91"S	17°99'61.16"E	1.5	310.9	10	30°
12.2	Paved Road	Paved Road	-33°00'59"S	17°99'34.45"E	1.5	592.2	10	30°
12.3	Paved Road	Paved Road	-33°01'69.65"S	17°98'90.69"E	1.5	899.0	10	30°
12.4	Paved Road	Paved Road	-33°00'26.62"S	17°99'92.53"E	1.5	1043.34	10	30°
13	Paved Road	Paved Road	-32°99'95.5"S	17°99'53.7"E	1.5	2788.7	10	30°

*Area source means air pollution source from a specified area, e.g., pollution from a landfill site, fugitive dust from a process.

*Line source means a moving source of pollutants, e.g., motor vehicles.

5.4.6 Area and/or line source emissions

As per 5.4.5 ID	Pollutant Name	Maximum Release Rate (quantity per period)	Average Annual Release Rate (quantity per period)	Emission Hours	Type of Emission (Continuous / Intermittent)	Wind Dependent (Yes / No)
3	PM ₁₀	0.35	-	24 hours	Intermittent	Yes
4	PM ₁₀	1.728	-	24 hours	Intermittent	Yes
5.1	PM ₁₀	0.864	-	24 hours	Intermittent	Yes
5.2	PM ₁₀	0.864	-	24 hours	Intermittent	Yes
5.3	PM ₁₀	0.864	-	24 hours	Intermittent	Yes
5.4	PM ₁₀	0.864	-	24 hours	Intermittent	Yes
5.5	PM ₁₀	0.864	-	24 hours	Intermittent	Yes
6.1	PM ₁₀	0.786	-	24 hours	Intermittent	Yes
6.2	PM ₁₀	0.786	-	24 hours	Intermittent	Yes
6.3	PM ₁₀	0.786	-	24 hours	Intermittent	Yes
6.4	PM ₁₀	0.786	-	24 hours	Intermittent	Yes
7.1	PM ₁₀	0.653	-	24 hours	Intermittent	Yes
7.2	PM ₁₀	0.653	-	24 hours	Intermittent	Yes
7.3	PM ₁₀	0.653	-	24 hours	Intermittent	Yes
7.4	PM ₁₀	0.653	-	24 hours	Intermittent	Yes
8.1	PM ₁₀	2.111	-	24 hours	Intermittent	Yes
8.2	PM ₁₀	2.111	-	24 hours	Intermittent	Yes
9.1	PM ₁₀	0.999	-	24 hours	Intermittent	Yes
9.2	PM ₁₀	0.999	-	24 hours	Intermittent	Yes

As per 5.4.5 ID	Pollutant Name	Maximum Release Rate (quantity per period)	Average Annual Release Rate (quantity per period)	Emission Hours	Type of Emission (Continuous / Intermittent)	Wind Dependent (Yes / No)
9.3	PM ₁₀	0.999	-	24 hours	Intermittent	Yes
10.1	PM ₁₀	0.890	-	24 hours	Intermittent	Yes
10.2	PM ₁₀	0.890	-	24 hours	Intermittent	Yes
10.3	PM ₁₀	0.890	-	24 hours	Intermittent	Yes
11.1	PM ₁₀	0.223	-	24 hours	Intermittent	Yes
11.2	PM ₁₀	0.223	-	24 hours	Intermittent	Yes
12.1	PM ₁₀	4.63	-	24 hours	Intermittent	No
12.2	PM ₁₀	4.63	-	24 hours	Intermittent	No
12.3	PM ₁₀	4.63	-	24 hours	Intermittent	No
12.4	PM ₁₀	4.63	-	24 hours	Intermittent	No
13	PM ₁₀	4.63	-	24 hours	Intermittent	No

5.4.7 Area and/or line source – management and mitigation measures

Provide information on management and mitigation measures.

As per 5.4.5 ID	Description of Specific Measures	Timeframe for Implementation of Specific Measures	Method of Monitoring Measure Effectiveness	Contingency Measure
3	Water Sprays	March 2008	Visual inspection and SCADA indications	As per air management plan
4	Water Sprays	March 2008	Visual inspection and SCADA indications	As per air management plan
5.1	Water Sprays	March 2008	Visual inspection and SCADA indications	As per air management plan
5.2	Water Sprays	March 2008	Visual inspection and SCADA indications	As per air management plan
5.3	Water Sprays	March 2008	Visual inspection and SCADA indications	As per air management plan
5.4	Water Sprays	March 2008	Visual inspection and SCADA indications	As per air management plan
5.5	Water Sprays	March 2008	Visual inspection and SCADA indications	As per air management plan
6.1	Water Sprays	March 2008	Visual inspection and SCADA indications	As per air management plan
6.2	Water Sprays	March 2008	Visual inspection and SCADA indications	As per air management plan
6.3	Water Sprays	March 2008	Visual inspection and SCADA indications	As per air management plan
6.4	Water Sprays	March 2008	Visual inspection and SCADA indications	As per air management plan
7.1	Fogging system	March 2008	Visual inspection and SCADA indications	As per air management plan
7.2	Fogging system	March 2008	Visual inspection and SCADA indications	As per air management plan

As per 5.4.5 ID	Description of Specific Measures	Timeframe for Implementation of Specific Measures	Method of Monitoring Measure Effectiveness	Contingency Measure
7.3	Fogging system	March 2008	Visual inspection and SCADA indications	As per air management plan
7.4	Fogging system	March 2008	Visual inspection and SCADA indications	As per air management plan
8.1	Fogging system	March 2008	Visual inspection and SCADA indications	As per air management plan
8.2	Fogging system	March 2008	Visual inspection and SCADA indications	As per air management plan
9.1	Fogging system	March 2008	Visual inspection and SCADA indications	As per air management plan
9.2	Fogging system	March 2008	Visual inspection and SCADA indications	As per air management plan
9.3	Fogging system	March 2008	Visual inspection and SCADA indications	As per air management plan
10.1	Fogging system	March 2008	Visual inspection and SCADA indications	As per air management plan
10.2	Fogging system	March 2008	Visual inspection and SCADA indications	As per air management plan
10.3	Fogging system	March 2008	Visual inspection and SCADA indications	As per air management plan
11.1	Fixed chutes and dust suppressant	March 2008	Visual inspection and SCADA indications	As per air management plan
11.2	Fixed chutes and dust suppressant	March 2008	Visual inspection and SCADA indications	As per air management plan
12.1	Road sweeping/vacuuming	March 2008	Visual Inspections	As per air management plan
12.2	Road sweeping/vacuuming	March 2008	Visual Inspections	As per air management plan
12.3	Road sweeping/vacuuming	March 2008	Visual Inspections	As per air management plan
12.4	Road sweeping/vacuuming	March 2008	Visual Inspections	As per air management plan

As per 5.4.5 ID	Description of Specific Measures	Timeframe for Implementation of Specific Measures	Method of Monitoring Measure Effectiveness	Contingency Measure
13	Road sweeping/vacuuming	March 2008	Visual Inspections	As per air management plan

5.4.8 Area and/or line source emission estimation informationW

As per 5.4.5 ID	Basis for Emission Rates
3	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
4	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
5.1	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
5.2	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
5.3	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
5.4	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
5.5	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
6.1	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
6.2	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
6.3	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
6.4	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
7.1	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
7.2	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
7.3	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
7.4	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
8.1	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
8.2	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency

As per 5.4.5 ID	Basis for Emission Rates
9.1	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
9.2	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
9.3	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
10.1	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
10.2	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
10.3	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
11.1	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
11.2	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
12.1	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
12.2	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
12.3	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
12.4	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency
13	Air Quality Permit Amendment BA (Nov 2009), scenario assuming 1.2 % moisture content and 50% mitigation efficiency

6 APPLIANCES AND MEASURES TO PREVENT AIR POLLUTION

6.1 Appliances and control measures

Provide information on appliances and measures implemented to prevent air pollution for the entire operation at the site of the works, highlighting information for listed activity or activities proposed in respect of this application.

Appliances				Abatement Equipment Control Technology							
Associated Unique Stack ID	Appliance / Process Equipment Number	Appliance Type / Description	Appliance Serial Number	Abatement Equipment Manufacture Date	Abatement Equipment Name and Model	Abatement Equipment Technology Type	Commission Date	Date of Significant Modification / Upgrade	Design Capacity	Minimum Control Efficiency (%)	Minimum Utilization (%)

Appliances				Abatement Equipment Control Technology							
Associated Unique Stack ID	Appliance / Process Equipment Number	Appliance Type / Description	Appliance Serial Number	Abatement Equipment Manufacture Date	Abatement Equipment Name and Model	Abatement Equipment Technology Type	Commission Date	Date of Significant Modification / Upgrade	Design Capacity	Minimum Control Efficiency (%)	Minimum Utilization (%)
1	None	Tippler 1 Baghouse	None	1995	Unknown	Dust extraction	1995	Unknown	60m ³ /min	98%	99.5%
2	None	Tippler 2 Baghouse	None	2004	Unknown	Dust extraction	2004	Unknown	60m ³ /min	98%	99.5%
3		Tippler 3 Baghouse	None	2015	Unknown	Dust extraction	2016	N/A			
4	None	Fogging Sprayer	None	2008	Unknown	Wetting sprayers	2008	Unknown	2m ³ /hr	75%	99.5%
5	None	Canon Sprayer	None	2004	Unknown	Wetting sprayers	2004	Unknown	60m ³ /min	75%	99.5%
6	None	Water Truck	None	2006	Unknown	Wetting sprayers	2006	Unknown	10 000L/day	75%	99.5%
7	None	Sweeper Truck	None	2008	Unknown	Sweeper Truck	2008	Unknown	5000L/day	75%	99.5%
8	None	Vacuum Truck	None	2008	Unknown	Vacuum Truck	2008	Unknown	1 Bar suction	75%	99.5%

6.2 Start-up, maintenance and shut-down conditions

List potential start up, maintenance, shut down, upset conditions and associated responses related to the operations at the site of the works, highlight possible releases and responses for the proposed listed activity or activities in respect of the current application.

Unit Process	Description of Occurrence of Potential Releases	Pollutants and associated amount of emissions	Briefly Outline Back Up Plan
See EMP	See EMP	See EMP	As Per Environmental Management Plan, Addendum B

6.3 Routine Reporting and Record Keeping

6.3.1 Complaints register

Is a complaints register maintained at the site of works?

X	Yes	Main Gate, Electronic mail and fax
	No	
	To be initiated, by date:	

Please provide a copy of complaints received and corrective actions taken over the past two years.

7. DISPOSAL OF WASTE AND EFFLUENTS ARISING FROM ABATEMENT EQUIPMENT CONTROL TECHNOLOGY

Provide the following information for any waste and effluent arising from abatement equipment control technology that are currently in place at the site of the works:

Unique Stack or Area ID (As per 5.4.1 or 5.4.5 above)	Waste / Effluent Type	Hazardous Components Present	Method of Disposal
Filters from dust plants	Filters	PM ₁₀	Disposed of as recyclable material
Sludge from belt turn over points	Sludge	PM ₁₀	Sold for reuse as colourant and cement hardener.
Spilt ore	Ore	PM ₁₀	Screen and reuse as export product.

