

**WESKUS DISTRIKSMUNISIPALITEIT
WEST COAST DISTRICT MUNICIPALITY**



Rig alle korrespondensie aan:
Address all correspondence to:

**MUNISIPALE BESTUURDER/
MUNICIPAL MANAGER**

Navrae/Enquiries: C. Ganten-Bein
Verw.Nr. /Ref. No.: 15/2/3/5/2

Posbus / P O Box 242
MOORREESBURG, 7310

Telefoon/Phone (022) 4338400
Faks/Fax Nr. 086 6926 113

E-Mail Adres/Address:
westcoastdm@wcdm.co.za

01 March 2019

Environmental and Quality Management
Saldanha Steel (Pty) Ltd
Private Bag X11
SALDANHA
7395
Via E-mail: gerald.vrolick@arcelormittal.com

Dear Mr Vrolick

**LISTED ACTIVITY: APPLICATION FOR RENEWAL OF ATMOSPHERIC
EMISSION LICENCE (AEL) IN TERMS OF CHAPTER 5 OF THE NATIONAL
ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004 (ACT 39 OF 2004)
(NEM: AQA): SALDANHA STEEL (PTY) LTD, YZERVARKENSRUG, SALDANHA
WITH AEL NUMBER WC/WC/020.**

Your application for an Atmospheric Emission Licence (AEL) renewal in terms of Section 47 of the National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) NEM: AQA has reference.

Decision:

Based on the information provided by the applicant the licensing authority has decided to grant the renewal of the Atmospheric Emission Licence (AEL).

Reasons for the decision:

This decision considered compliance with the requirements of the Constitution, NEM: AQA, NEMA and other legislation. The following information was available to the licensing authority, which was taken into account in the consideration of the application:

- Information provided in company's renewal application dated 14 March 2018;
- Information provided in the AEL dated 26 August 2015;
- Comments and response report compiled by Resource Management Services dated 17 January 2019 confirming that no comments were received during the public participation process;
- Report resulting from DEA Compliance Inspection that took place on 10 and 11 July 2018;
- Site inspection that took place on 28 January 2019; and
- Information that became available during processing of the application.

The licensing authority has also taken into consideration the right to have the environment protected in terms of section 24 of the Constitution, in particular the right to an environment that is not harmful to health or well-being, and the right to have the environment protected through measures that secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

The applicable principles in section 2 of NEMA have been noted, in particular that sustainable development requires a consideration of the following factors:

- that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
- that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.

In terms of Section 40(4) (b) of NEM: AQA it is expected from the applicant, through the appointed Environmental Assessment Practitioner (EAP), to notify all persons who have objected to the application within 7 days from the date of issue of the AEL.

Immediately following the 7 days, an appeal period of 21 (twenty one) days as prescribed in terms of Section 62 of the Municipal Systems Act, 2000 (Act 32 of 2000) as amended, will commence.

The applicant as well as those who objected to the application have a right to appeal. Appeals must be in writing with detailed reasons and addressed to the Municipal Manager, PO Box 242, Moorreesburg, 7310.

For further information you are welcome to contact Councils' Air Quality Officer C Ganten-Bein on telephone number 022 7135950.

Yours faithfully,


.....
C. GANTEN-BEIN
MANAGER: AIR QUALITY

Copy: Provincial Air Quality Officer: joy.leaner@westerncape.gov.za
Air Quality Officer, Saldanha Bay Local Municipality: Rene.Toesie@sbm.gov.za

WEST COAST DISTRICT MUNICIPALITY

LICENCE NO:

WC/WC/020



REF NO:

12/3/1/11

**NATIONAL ENVIRONMENTAL MANAGEMENT:
AIR QUALITY ACT, 2004 (ACT 39 OF 2004)**

**ATMOSPHERIC EMISSION LICENCE
CONCERNING LISTED ACTIVITIES**

SALDANHA STEEL (PTY) LTD

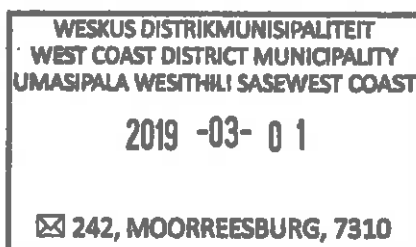
Is authorised to conduct the processes listed below with the equipment and plant as detailed in the attached document with licence number WC/WC/020 dated 01 March 2019 on the premises of Farm 1132 (Portion 2 of Yzervarkensrug No 129, Portions 8 and 13 Yzervarkensrug No 127 and Portion of Farm 195 in the Saldanha Bay Municipal area, Western Cape.

**METALLURGICAL INDUSTRY: SUB-CATEGORIES 4.2, 4.6, 4.7, 4.8, 4.11 & 4.12 AND
MINERAL PROCESSING, STORAGE AND HANDLING: SUB-CATEGORIES 5.1 & 5.2 OF
LIST OF ACTIVITIES CONTEMPLATED IN SECTION 21(1) (a) OF NEM: AQU**

AIR QUALITY OFFICER

SENIOR MANAGER: MUNICIPAL HEALTH

OFFICIAL DATE STAMP



This Atmospheric Emission Licence is valid until 01 March 2024. An application for a renewal must be submitted to the licencing authority on or before 01 March 2023.

WESKUS DISTRIKSMUNISIPALITEIT WEST COAST DISTRICT MUNICIPALITY

Rig alle korrespondensie aan:
Address all correspondence to:

MUNISIPALE BESTUURDER/
MUNICIPAL MANAGER

Navrae / Enquiries: Miss C. Ganten-Bein
Verw.Nr./ Ref. No.: 12/3/1/11



Posbus / P O Box 242
MOORREESBURG, 7310

Telefoon/Phone (022) 4338400
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E-Mail Adres / Address:
westcoastdm@wcdm.co.za

ATMOSPHERIC EMISSION LICENCE AS CONTEMPLATED IN SECTION 43 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004, (ACT NO. 39 OF 2004)

Atmospheric Emission Licence issued to **Saldanha Steel (Pty) Ltd** in terms of section 40(1)(a) of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("the Act"), in respect of Listed Activities: **Subcategory 4.2, 4.6, 4.7, 4.8, 4.11, 4.12, 5.1 & 5.2**

The Atmospheric Emission Licence has been issued on the basis of:

- Information provided in the company's renewal application dated 14 March 2018;
- Information provided in the AEL dated 26 August 2015;
- Comments and response report compiled by Resource Management Services dated 17 January 2019 confirming that no comments were received during the public participation process;
- Report resulting from DEA Compliance Inspection that took place on 10 and 11 July 2018;
- Site inspection that took place on 28 January 2019; and
- Information that became available during processing of the application.

The Atmospheric Emission Licence is valid until **01 March 2024** but an application for renewal must be submitted to the licensing authority on or before **01 March 2023**.

The reason for the issue of this licence is by virtue of an application for the renewal of the Atmospheric Emission Licence in terms of NEM: AQA.

The licence must be read in conjunction with supporting documentation such as, but not limited to, the application form, approved Fugitive Emission Management Plan (Fugitive EMP) and environmental authorisation as amended from time to time.

The Atmospheric Emission Licence is issued with conditions and requirements set out below which form part of the Atmospheric Emission Licence and are binding on the holder of the Atmospheric Emission Licence namely **Saldanha Steel (Pty) Ltd** ("the holder").

1. ATMOSPHERIC EMISSION LICENCE ADMINISTRATION

Name of the Licensing Authority	West Coast District Municipality
Atmospheric Emission Licence Number	WC/WC/020
Atmospheric Emission Licence Issue Date	01 March 2019
Atmospheric Emission Licence Type	Final AEL Renewal
Review Date	To be determined as and when required
Renewal Date, not later than	01 March 2023

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Air Quality Officer: Senior Manager: Municipal Health: Date: 01 March 2019

2. ATMOSPHERIC EMISSION LICENCE HOLDER DETAILS

Enterprise Name	Saldanha Steel (Pty) Ltd
Trading as	Saldanha Steel (Pty) Ltd a subsidiary of ArcelorMittal South Africa Limited
Enterprise Registration Number (Registration Numbers if Joint Venture)	1995/000628/07
Registered Address	Yzervarkensrug, Saldanha
Postal Address	Private Bag X11, Saldanha, 7395
Telephone Number (General)	022 709 4000
Industry Sector	Iron and Steelmaking
Name of Responsible Officer	Gerald Vrolick
Name of Emission Control Officer	Gerald Vrolick
Telephone Number	022 709 4047
Cell Phone Number	073 480 9812
Fax Number	022 709 4682
Email Address	gerald.vrolick@arcelormittal.com
After Hours Contact Details	073 480 9812
Land Use Zoning as per Town Planning Scheme	Industrial

3. LOCATION AND EXTENT OF PLANT

Physical Address of the Premises	Yzervarkensrug, Saldanha
Description of Site (Erf)	Farm 1132 (Portion 2 of Yzervarkensrug No 129, portions 8 and 13 Yzervarkensrug No 127 and portion of Farm 195)
Coordinates of Approximate Centre of Operations	Latitude: -32.978435 Longitude: 18.022642
Property Registration Number (Surveyor-General Code)	T60028 - 1997
Extent (ha)	400 ha
Elevation Above Mean Sea Level (m)	16
Province	Western Cape
District Municipality	West Coast District Municipality
Local Municipality	Saldanha Bay
Designated Priority Area	N/A

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Air Quality Officer:  Senior Manager: Municipal Health:  Date: 01 March 2019

4. GENERAL CONDITIONS

4.1. Process and ownership changes

The holder of the atmospheric emission licence must ensure that all unit processes and apparatus used for the purpose of undertaking the listed activity in question, and all appliances and mitigation measures for preventing or reducing atmospheric emissions, are at all times properly maintained and operated.

No building, plant or site of works related to the listed activity or activities used by the licence holder shall be extended, altered or added to the listed activity without an environmental authorisation from the competent authority. The investigation, assessment and communication of potential impact of such an activity must, where relevant, follow the basic assessment procedure as prescribed in the Environmental Impact Assessment Regulations published in terms of section 24(5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), as amended.

Any changes in processes or production increases, by the licence holder, will require prior approval by the competent authority.

Any changes to the type and quantities of input materials and products, or to production equipment and treatment facilities will require prior written approval by the competent authority.

The licence holder must, in writing, inform the licensing authority of any change of ownership of the enterprise. The licensing authority must be informed within 30 (thirty) days after the change of ownership.

The licence holder must immediately on cessation or decommissioning of the listed activity inform, in writing, inform the licensing authority.

4.2. General duty of care

The holder of the licence must, when undertaking the listed activity, adhere to the duty of care obligations as set out in section 28 of the NEMA.

The licence holder must undertake the necessary measures to minimize or contain the atmospheric emissions. The measures are set out in section 28(3) of the NEMA.

Failure to comply with the above condition is a breach of the duty of care, and the licence holder will be subject to the sanctions set out in section 28 of the NEMA.

All abnormal and emergency incidences must be investigated and be reported to the relevant authorities in terms of Section 30 of the National Environmental Management Act, 1998 (Act 107 of 1998) as amended.

4.3. Sampling and/or analysis requirements

Measurement, calculation and/or sampling and analysis shall be carried out in accordance with any nationally or internationally acceptable standard. A different method may be acceptable to the licensing authority as long as it has been consulted and agreed to the satisfactory documentation necessary in confirming the equivalent test reliability, quality and equivalence of analyses.

The licence holder is responsible for quality assurance of methods and performance. Where the holder of the licence uses external laboratories for sampling or analysis, accredited laboratories shall be used.

4.4. General requirements for licence holder

The licence holder is responsible for ensuring compliance with the conditions of this licence by any person acting on his, her or its behalf, including but not limited to, an employee, agent, sub-contractor or person rendering a service to the holder of the licence.

The licence does not relieve the licence holder to comply with any other statutory requirements that may be applicable to the carrying on of the listed activity.

A copy of the licence must be kept at the premises where the listed activity is undertaken. The licence must be made available to the environmental management inspector representing the licensing authority who requests to see it.

The licence holder must inform, in writing, the licensing authority of any change to its details including the name of the emission control officer, postal address and/or telephonic details.

The licence holder must, when circumstances demand, communicate with neighbouring land users and the general public whom are affected by the impact from the activity and report to the licensing authority in this regard.

4.5. Statutory obligations

The licence holder must comply with the obligations as set out in Chapter 5 of the Act.

4.6. Payment of atmospheric emission licence processing fee

The licence holder will be liable for the payment of an Atmospheric Emission Licence (AEL) processing fee as per the National Environmental Management Regulations Prescribing the Atmospheric Emission Licence Processing Fee No. 250 dated 11 March 2016.

5. NATURE OF PROCESS

5.1. Process description

Saldanha Works employs operational equipment and technologies to convert lump iron ore into steel and Hot Rolled Coil.

Raw Materials Handling

Raw Materials areas located west of the plant are used for the bulk storage and handling of Iron Ore and Coal, offloading and storage of various other Raw Materials and conveying via transfer stations equipped with dust extraction systems. Various by-products are also stored on various locations on site for re-use within the process or sale to external users.

The Corex Plant

The Corex unit converts about 60% of the iron ore consumed into liquid iron. The plant consists of two main components - a reduction shaft and a melter-gasifier. Pellets can also be used to replace iron ore or a mixture of pellets and iron ore can be used for the production of liquid iron.

In the reduction shaft the lump iron ore is first reduced to sponge iron by reaction with a reducing gas generated in the melter-gasifier. The reduced iron ore is then melted in the melter-gasifier using heat generated by the combustion of coal and coke with injected oxygen. Coal or Coke only can be used during the combustion

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process. Small volumes of by-products are fed into the Corex as part of the waste reduction initiative on site. The Corex process is similar to a blast furnace facility.

The Midrex Plant

Excess reducing gas generated in the Corex plant is used in the Midrex to convert the remaining 40% of the iron ore and pellets into solid sponge iron. (a highly metallised product suitable for steel commonly referred to as DRI (directly reduced iron)). DRI can be produced by using pellets only.

The Steel Meltshop

The liquid iron and DRI are converted into steel in the Steel Meltshop. The Corex liquid iron contains about 4% carbon, virtually all of which is removed by electric arc and oxygen injection in the Conarc process, a hybrid between an Electric Arc Furnace and a Basic Oxygen Furnace. Scrap steel, Hot Briquetted Iron (HBI) and various fluxes are also charged into the Conarc furnace in the Steel Meltshop. Further steel refining take place in the ladle furnace & Vacuum Oxygen Decarburizer (VOD). The Steel Meltshop may operate on Scrap only as an input material to produce steel.

The Thin Slab Caster

The liquid steel from the Steel Meltshop is continuously cast into slabs that vary from 50 - 100 mm thickness and from 900 - 1560 mm in width.

Roller Hearth Furnace (RHF)

After casting, the slabs proceed directly into a long (about 180 m) temperature equalising furnace (RHF) where the temperature of the slabs is increased to that required for rolling the steel. Corex gas and/or LPG is used as fuel in this furnace.

Hot Strip Mill

The steel is reduced or rolled to its final thickness in two stages: the Roughing Mill and the Finishing Mill. In the roughing mill slabs are rolled in two roughing stands (4-high) to create a transfer bar with a gauge of approximately 20mm. The slabs are subjected to compressive and frictional forces which reduce the gauge of the slabs and elongate them into coils.

In the Finishing Mill the transfer bar is rolled to the final thickness in a five-stand (4-high) finishing mill. The final thickness is 0.8 mm to 8.5 mm, which is then rolled up in a coil.

Temper Mill

A temper rolling facility is available to process up to 70 % of the hot rolled coils. The main objective of this mill is not to reduce the strip thickness but to achieve good strip flatness quality and rewind defective coils.

Briquetting Plant

Briquetting is the process of compressing and compacting fine powders, granular or shredded materials into a solid mass (briquette). The by-products produced at Saldanha Steel are to be utilised in the manufacturing of briquettes. The Press Briquetting method is a roll type press which comprises of two rotating wheels. Materials are fed into the mixer where water is added. The rolls compress the materials under high pressure to form a briquette. The briquette is then discharged from the machine. The briquette will be wet due to the water added into the mixer. It is then stored in a dry and well-ventilated area before being reused in the iron and steel making process.

5.2. Listed activity or activities

List of all Listed Activities, as published in terms of Section 21 of the AQA, authorised to be conducted at the premises by the licence holder:

Listed Activity Number	Category of Listed Activity	Sub-category of the Listed Activity	Listed Activity Name	Description of the Listed Activity
1	4	4.2	Combustion Installations	Combustion installations not used for primarily for steam raising and electricity generation (except drying)
(a) The following special arrangements shall apply – (i) Reference oxygen content appropriate to fuel type must be used.				
2	4	4.6	Basic Oxygen Furnaces	Basic oxygen furnaces in the steel making industry.
(a) The following special arrangements shall apply – Secondary fume capture installations shall be fitted to all new furnace installations.				
3	4	4.7	Electric Arc Furnaces (Primary and Secondary)	Electric arc furnaces in the steel making industry
(a) The following special arrangements shall apply – Secondary fume capture installations shall be fitted to all new furnace installations.				
4	4	4.8	Blast Furnaces	Blast furnace operations (Corex)
(a) The following special arrangements shall apply – Secondary fume capture installations shall be fitted to all new furnace installations.				
5	4	4.11	Agglomeration Operations	Production of pellets or briquettes using presses, inclined discs or rotating drums. (Sludge Granulation Plant & Briquetting Plant.)
6	4	4.12	Pre-reduction and Direct Reduction.	Production of pre-reduced or metallised ore or pellets using gaseous or solid fuel. (Midrex & Corex)
7	5	5.1	Storage and Handling of Ore and Coal	Storage and handling of ore and coal not situated on the premises of a mine or works as defined in the Mines Health and Safety Act 29/1996.
^a three months running average not to exceed limit value for adjacent land use according to dust control regulations promulgated in terms of section 32 of the NEM: AQA, 2004 (Act No. 39 of 2004), in eight principal wind directions.				
8	5	5.2	Drying	Drying of mineral solids including ore, using dedicated combustion installations (Coal drying)

5.3. Unit process or processes

List of all unit processes associated with the listed activities to be undertaken at the site of work.

Unit Process	Unit Process Function	Batch or Continuous Process
Raw Material Handling	Offloading, storage and handling of various Raw Materials (including ore and coal) and by-products awaiting reuse, and conveying via transfer stations.	Continuous
Corex	Produce liquid iron for Conarc furnace and supply gas to Midrex Plant. Slag is granulated to render a sought-after by-product.	Continuous
Midrex	Produce DRI for Conarc furnace from ore and pellets supplied by Raw Material Handling section.	Continuous
Coal drying Plant	The coal dryer is used to reduce the moisture content of the Coal	Continuous
Slag Granulation Plant	Produces slag granules for the cement industry	Continuous
Roller hearth furnace	Heats up slabs	Continuous
Conarc Furnace	The Conarc converts molten iron, direct reduced iron and scrap to molten steel. HBI and by-products could also be added.	Batch
Ladle Heating Furnace	Treats molten steel for casting.	Batch
VOD (Vacuum oxygen decarburising)	Treats molten steel for casting.	Batch
Briquetting Plant	Fine metallurgical materials generated on site are used to manufacture briquettes to be re-used in the iron and steel making process.	Continuous
Temper mill	Improves steel flatness quality	Continuous
Iron Granulation Plant	Iron Granulation Plant produces iron granules for Steelmaking.	Intermittent
Thin Slab Caster	Casting of steel slabs	Continuous
VOD Boiler	The VOD Boiler supplies steam to the VOD Plant and the Ladle Heating Furnace treats the molten steel for Casting at the Caster. The VOD Boiler can operate on Corex Gas or LPG.	Batch
HSM	Roll Slabs to flat strip of required thicknesses	Batch
Air Liquide	Atmospheric air is compressed, dried and carbon dioxide removed through a purification process. The liquid air is separated into nitrogen and oxygen by distillation. Oxygen, nitrogen and argon is then vaporized and supplied to Saldanha Works	Continuous
Lancing Booth at IGP (Iron granulation Plant)	Iron sculls are removed from the tundish after granulation by lancing	Intermittent

5.4. Hours of operations

Indicate the hours of operation of all unit processes associated with the listed activities at the site of work.

Unit Process	Operating Hours	Days of Operation per Year
Raw Material Handling	00h00-24h00	365
Corex	00h00-24h00	365
Midrex	00h00-24h00	365
*Iron Granulation Plant and Conarc Furnace	00h00-24h00	365
Conarc	00h00-24h00	365
*Ladle heating furnace	00h00-24h00	365
*Vacuum Oxygen Decarburising Plant (VOD)	00h00-24h00	365
Thin Slab Caster	00h00-24h00	365
Roller hearth furnace and hot strip mill	00h00-24h00	365
Temper mill	00h00-24h00	365
Coal drying Plant	00h00-24h00	365
Air Liquide	00h00-24h00	365
*Slag Granulation Plant	00h00-24h00	365
*Sludge Granulation Plant	00h00-24h00	365
*VOD Boiler	00h00-24h00	365
*Lancing Booth at IGP	00h00-24h00	365
HSM	00h00-24h00	365
Briquetting Plant	00h00-24h00	365

***Note:** Unit process marked with * does not operate 24 hours per day, but intermittently

5.5. Graphical process Information:

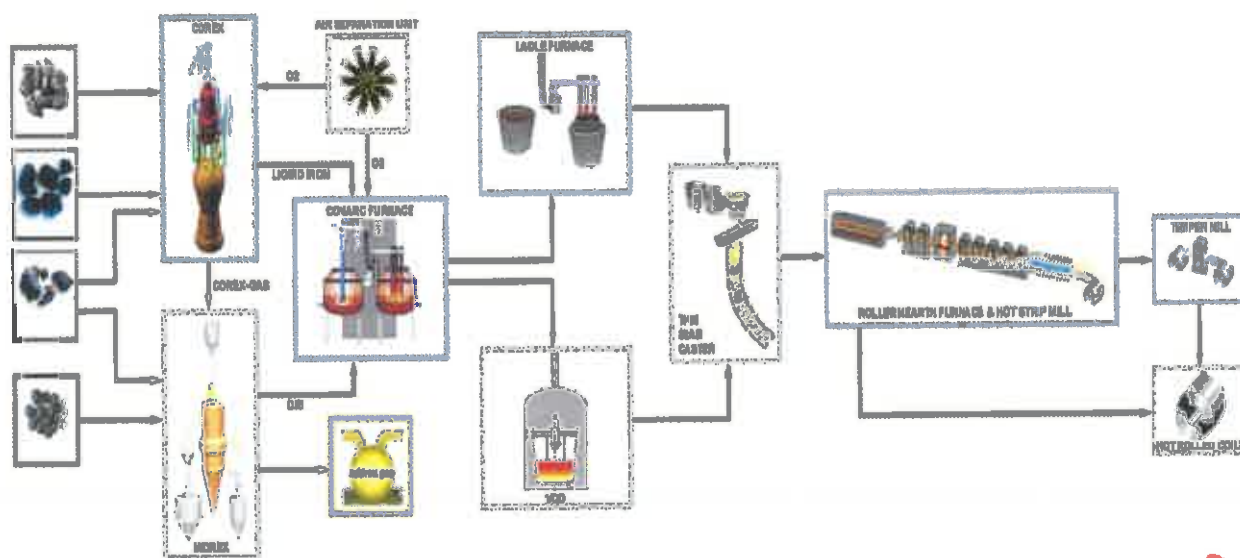
Site layout and location:



	Slag and Scrap Handling Area
	ArcelorMittal Saldanha Works
	Granulated Slag storage Area
	Tronox Namakwa Sands
	Strategic Fuel Fund
	Bulk Iron Ore Terminal
	Blue Water Bay residential area
	Duferco steel processing

Process flow diagram:

MASS FLOW



ArceclorMittal

Location of point sources:



WC/WC/020

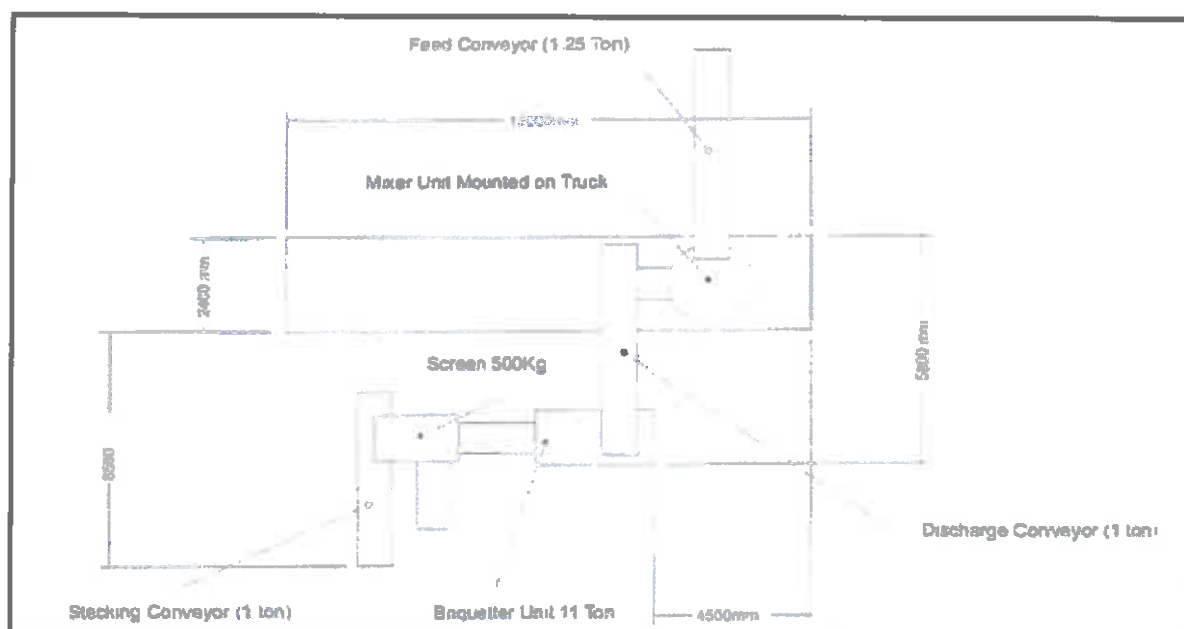
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Air Quality Officer:  Senior Manager: Municipal Health:  Date: 01 March 2019

Fugitive sources:



Briquetting Plant:



6. RAW MATERIALS AND PRODUCTS

6.1. Raw materials used

Regulated Raw Materials		
Raw Material Type	Maximum Permitted Consumption Rate (Quantity)	Units (quantity/period)
Instrument air	18 000	Nm³/h
Nitrogen	30 000	Nm³/h
Argon	600	Nm³/h
Oxygen (99.5%)	20 000	Nm³/h
Oxygen (95%) purity	75 000	Nm³/h
Sishen lump ore & Iron ore pellets	2 832 000	ton/annum
Dolomite	228 000	ton/annum
Limestone	162 000	ton/annum
Burnt lime	138 000	ton/annum
Scrap	500 000	ton/annum
Imported DRI/HBI	120 000	ton/annum
Minor components	720 000	ton/annum
Lump Lime	98 000	ton/annum
Burnt Dolomite	65 000	ton/annum
Raw Dolomite	282 000	ton/annum
Bulk Coal	1140 000	ton/annum
Coke	180 000	ton/annum
Fine Lime	24 000	ton/annum
Steel Plant Slag and Steel Scrap, Liquid Steel, Cast Steel Slab, Tundish Skulls, Unrolled Slab, Steel Strip	300 000	ton/annum
Other (Recycled materials and by-products)	150 000	ton/annum
Non-regulated Raw Materials		
Raw Material Type	Maximum Permitted Consumption Rate (Quantity)	Units (quantity/period)
N/A	N/A	N/A

* **Regulated raw materials** refers to those materials when increased or decreased may result in the change of air emissions output.

* **Non-regulated raw materials** refers to those materials when increased or decreased may not result in any change of air emissions output.

6.2. Production rates

Product Name	Maximum Permitted Production Capacity (Quantity)	Units (Quantity/Period)
Hot Rolled Coil	1 350 000	Tons/annum
Granulated Corex Slag	310 000	Tons/annum
Coal Fines	200 000	Tons/annum
Sludge Granules	100 000	Tons/annum
Burnt Dolomite Fine	5 000	Tons/annum
Briquettes	87 600	Tons/annum

By-Product Name	Maximum Production Capacity Permitted (Quantity)	Design Production Capacity (Quantity)	Actual Production Capacity (Quantity)	Units (Quantity/Period)
Air Cooled Corex slag	N/A	N/A	50000	Tons/annum
Conarc slag	N/A	N/A	276000	Tons/annum
Refractories	N/A	N/A	12000	Tons/annum
By product Iron	166506	N/A	166506	Tons/annum
Granulated Corex Slag	310000	N/A	310000	Tons/annum
Conarc Dust	N/A	N/A	30000	Tons/annum
Corex Classifier Sand	N/A	N/A	14000	Tons/annum
Midrex Classifier Sand	N/A	N/A	1400	Tons/annum
Mill scale	N/A	N/A	12000	Tons/annum
Caster Scale	N/A	N/A	13000	Tons/annum

Note: The above-mentioned by-products are either re-used back in the processes or sold if markets are available or disposed of as a waste.

6.3. Materials used in energy sources

Materials for Energy Source	Actual Consumption Rate (Quantity)	Units (quantity/period)	Materials Characteristics
Coal	950 000	Tons/annum	Sulphur: 0.5% – 0.9% Ash: 14% – 25%
Coke	150 000	Tons/annum	Sulphur: 0.4% – 0.9% Ash: 12% - 15%
Electricity	N/A	MWh/annum	N/A
LPG	36 000	Tons/annum	N/A
Carbonaceous Product	30 000	Tons/annum	Sulphur: 0.5% – 2% Ash: 20%
Paraffin	1 800	kl/annum	N/A
Diesel	2 600	kl/annum	N/A
Corex producer gas	125 000 000	m ³ /month	N/A

6.4. Sources of atmospheric emission

6.4.1. Point source parameters

Point Source Code	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 (m³/hr)	Actual Gas Exit Velocity (m/s)	Emission Hours	Type of Emission (Continuous / Batch)
		South	East								
221	Coal Drier	-32.979795	18.018405	26	~7	2.5	42.3	186120	10.7	24	Continuous
222	Coal transport	-32.979726	18.018509	26	~7	1.3	29.5	32040	6.9	24	Continuous
220	Coal blending and screening	-32.977809	18.017908	25	~4	1	29.7	14040	4.96	24	Continuous
225	Corex Cast House	-32.979602	18.019988	26	~5	4.8	57.2	723240	11.2	24	Continuous
223	Coal Stock House	-32.979310	18.020060	44	~5	1.3	23.2	48600	10.3	24	Continuous
224	Ore Stock House	-32.978866	18.020226	16	~7	1.6	23.9	81360	11.4	24	Continuous
321	Midrex Metallised Fines	-32.976130	18.020687	30	~2	1.1	27.7	39960	11.3	24	Continuous
320	Midrex Product De-dusting	-32.976763	18.019504	30	~12	1.1	44.0	29160	8.2	24	Continuous
411	Conarc	-32.979903	18.021307	45	~2	5.8	79.3	1562040	16.2	24	Continuous
219	Flare	-32.976488	18.021215	80	~50	1	Not determined				Continuous
209	Granulation Plant (Slag)	-32.978872	18.021628	40	~15	2.5	Not determined				Continuous
501	Caster Stack	-32.978764	18.023142	16	~2	1.3	Not determined				Continuous
RH1	Roller Hearth Furnace Stack #1	-32.978356	18.024141	16	~5	1.4	417	Not determined	13.5	24	Continuous
RH2	Roller Hearth Furnace Stack #2	-32.978223	18.024955	16	~5	0.78	303	Not determined	2.97	24	Continuous

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313	Midrex gas heater stack	-32.9773	18.02041	30	~6	2.4	500	136080	8.5	24	Continuous	
405	VOD Boiler	-32.9783	18.0228	50	~2	0.9	236	31680	13.4	24	Continuous	
302	Furnace de-dusting (Midrex)	-32.9777	18.01972	30	~6	1	43.7	46800	16.5	24	Continuous	
224-1	Stock house extension	-32.58773	18.01124	4	N/A	6	Not determined			24	Continuous	
502	Alloy Store De-dusting Unit	ND	ND	4	N/A	1	22.9	25448.4	9	24	Continuous	
503	Stock House Extension Outlet	32.9795	18.0189	4	Not determined						24	Continuous

6.4.2. Area and/or line source parameters

Area Source Code	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)	Emission Hours	Type of Emission (Continuous / Intermittent)
Raw Materials Handling Stockyard	Handling and storage of various raw materials (including ore and coal >100 000 tons) and by-products awaiting reuse	Material Stockpiles	-32.58971 -32.58607 -32.58565 -32.58967	18.01.00 18.00918 18.01082 18.01133	0	740	200	24	Continuous
STapping1	Tapping Aisle South	Corex fugitives	-32.979374	18.021273	25	27.83	33.11	24	Continuous
STapping2	Tapping Aisle North	Corex fugitives	-32.978839	18.021144	25	27.83	33.11	24	Continuous
SConarcS	Conarc Building South	Furnace Fugitives	-32.978775	18.022827	50	6.37	61.85	24	Continuous
SConarcN	Conarc Building North	Furnace Fugitives	-32.978002	18.022633	50	4.9	23.12	24	Continuous
SMidrexSludge	Midrex Sludge Granulation Plant	Granulation Plant fugitives	-32.978599	18.020368	15	1	N/A	24	Continuous
SMidrexTransfer	Midrex Sludge Granulation Plant Transfer Point	Granulation Plant fugitives	-32.977578	18.019994	25	1	N/A	24	Continuous

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SCorexSlag	Corex slag dump	Slag Stockpile	-32.989828	18.02624	30	257	417	24	Continuous
SConarcSlag	Conarc Slag Dump	Slag Stockpile	-32.986564	18.013989	30	208	352	24	Continuous
STappingRd	Road from Scrap and Slag Handling Area to tapping aisle	Road	-32.982375	18.022708	0	414	16	24	Continuous
STP 1	9000t iron ore Stockpile	Iron ore stockpile	-32.9795	18.0189	5	62	55	24	Continuous
SBriquetting	Briquetting Plant (Mobile plant)	Briquetting Plant	-32.58971 -32.58607 -32.58565 -32.58967	18.01.00 18.00918 18.01082 18.01133	4.3	22	12	24	Continuous

7. APPLIANCES AND MEASURES TO PREVENT AIR POLLUTION

7.1. Appliances and control measures Correct

Associated Source Code	Appliances			Abatement Equipment Control Technology							
	Appliance / Process Equipment Number	Appliance Serial Number	Appliance Type / Description	Abatement Equipment Technology Name and Model	Abatement Equipment Technology Manufacture Date	Commission Date	Date of Significant Modification / Upgrade	Technology Type	Design Capacity	Minimum Control Efficiency (%)	Minimum Utilisation (%)
220	RC197, 592 & 593	N/A	Coal dust bin & coal line loading equipment (pneumatic conveyors)	Scheuch	Unknown	1998	N/A	Bag filter	N/A	98	96
	RC198	N/A	Coal blending & screening de-dusting	Scheuch	Unknown	1998	N/A	Bag filter	N/A	98	96
222	RC192	N/A	Coal transport dedusting	Scheuch	Unknown	1998	N/A	Bag filter	N/A	98	96

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221	RC194, 195 &196	N/A	Coal drier dedusting	Scheuch	Unknown	1998	N/A	Bag filter	N/A	98	96
224	RC291	N/A	Oxide stock house dedusting	Scheuch	Unknown	1998	N/A	Bag filter	N/A	98	96
223	RC292	N/A	Coal stock house dedusting	Scheuch	Unknown	1998	N/A	Bag filter	N/A	98	96
225	RC391	N/A	Corex top dedusting		Unknown	1998	N/A	Bag filter	N/A	98	96
225	RC491	N/A	Cast house dedusting	Scheuch	Unknown	1998	2004	Bag filter	N/A	98	96
219	Unknown	N/A	Corex flare	Unknown	Unknown	Unknown	Unknown	None	N/A	98	96
321	RD491	N/A	Midrex Metallised Fines	Scrubber: VAI, Fan: Rand Blower	Unknown	1998	N/A	Wet scrubber	N/A	98	96
320	RD493	N/A	Midrex Product Dedusting & Remet	Scrubber: VAI, Fan: Rand Blower	Unknown	1998	N/A	Wet scrubber	N/A	98	96
302	RD294	N/A	DR shaft/ furnace dedusting (vibro discharge)	Fan: Robinson Industries	Unknown	1998	N/A	Wet scrubber	N/A	98	96
313	RD382	N/A	DR flue gas stack DO3	Bloom waste gas heater	Unknown	1998	N/A	Forced draft, low NOx combustion chamber	N/A	98	96
411	430DB30	N/A	Steel plant filter / Elephant house de- dusting	N/A	Unknown	1998	N/A	Bag filter	N/A	98	96
502	R1.498	N/A	Raw Materials	N/A	Unknown	N/A	N/A	Bag filter	N/A	98	96
RH1, RH2	N/A	N/A	Roller Hearth Furnace	N/A	Unknown	N/A	N/A	N/A	N/A	98	96

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7.2. Point source – maximum emission rates (under normal working conditions)

Point Source Code	Pollutant Name	Maximum Release Rate			Duration of Emissions
		(mg/Nm ³)	Date to be Achieved By	Average Period	
221 (Drying 5.2)	PM	50	Immediate	24	Continuous
	SO ₂	1000	Immediate	1	Continuous
	NOx	1200 500	Immediate By 01 April 2020	1	Continuous
222 Coal Transport	PM	50	Immediate	24	Continuous
220 Blending & Screening	PM	50	Immediate	24	Continuous
225 Corex 4.8	PM	50 30	Immediate By 01 April 2020	24	Continuous
	SO ₂	500	Immediate	1	Continuous
	NOx	500	Immediate	1	Continuous
223 Coal Stock House	PM	50	Immediate	24	Continuous
224 Ore Stock House	PM	50	Immediate	24	Continuous
321 Midrex 4.12	PM	50	Immediate	24	Continuous
	SO ₂ from all other fuels	1700 500	Immediate By 01 April 2020	1	Continuous
	NOx	2000 500 – gas based 1000 – all other fuels	Immediate By 01 April 2020 By 01 April 2020	1	Continuous

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320 Midrex - 4.12	PM	50	Immediate	24	Continuous
411 Conarc - 4.6	PM	50 30	Immediate By 01 April 2020	24	Continuous
	SO ₂	500	Immediate	1	Continuous
	NOx	500	Immediate	1	Continuous
	PM	50 30	Immediate By 01 April 2020	24	Continuous
411 Conarc - 4.7	SO ₂	500	Immediate	1	Continuous
	NOx	500	Immediate	1	Continuous
	PM	50	Immediate	24	Continuous
	SO ₂	500	Immediate	1	Continuous
RH1 Furnace 4.2	NOx	2000 500	Immediate By 01 April 2020	1	Continuous
	PM	50	Immediate	24	Continuous
	SO ₂	500	Immediate	1	Continuous
	NOx	500	Immediate	1	Continuous
RH2 Furnace 4.2	PM	50	Immediate	24	Continuous
	SO ₂	500	Immediate	1	Continuous
	NOx	2000 500	Immediate By 01 April 2020	1	Continuous
	PM	100 50	Immediate By 01 April 2020	24	Continuous
313 Midrex 4.12	SO ₂ from all other fuels	1700 500	Immediate By 01 April 2020	1	Continuous
	NOx	2000 500 - gas based 1000 - all other fuels	Immediate By 01 April 2020	1	Continuous
	PM	50	Immediate	24	Continuous
	SO ₂ from all other fuels	1700 500	Immediate By 01 April 2020	1	Continuous
302 Midrex 4.12	PM	50	Immediate	24	Continuous
	SO ₂ from all other fuels	1700 500	Immediate By 01 April 2020	1	Continuous

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	NOx	2000 500 – gas based 1000 – all other fuels	Immediate By 01 April 2020 By 01 April 2020	1	Continuous
502 Alloy Store Dedusting Unit	PM	50	Immediate	24	Continuous

7.3. Point source – maximum emission rates (under start-up, maintenance and shut-down conditions)

Point Source Code	Pollutant Name	Maximum Release Rate		Average Period (Instantaneous, Hourly, Daily, Monthly, Annually)	Maximum Gas Volumetric Flow (m³/hr)	Maximum Gas Exit Velocity (m/s)	Emission Hours	Permitted Duration of Emissions
		(mg/Nm³)	Date to be Achieved By					
221	PM	50	Immediate	Instantaneous	186120	10.7	1hr	See point source operating requirements below.
	SO ₂	1000	Immediate	Instantaneous	186120	10.7	1hr	See point source operating requirements below.
	NOx	1200	Immediate	Instantaneous	186120	10.7	1hr	See point source operating requirements below.
222	PM	50	Immediate	Instantaneous	32040	6.9	1hr	See point source operating requirements below.
220	PM	50	Immediate	Instantaneous	14040	4.96	1hr	See point source operating requirements below.
225	PM	50 30	Immediate By 01 April 2020	Instantaneous	723240	11.2	1hr	See point source operating requirements below.
	SO ₂	500	Immediate	Instantaneous	723240	11.2	1hr	See point source operating requirements below.
	NOx	500	Immediate	Instantaneous	723240	11.2	1hr	See point source operating requirements below.
223	PM	50	Immediate	Instantaneous	48600	10.3	1hr	See point source operating requirements below.

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224	PM	50	Immediate	Instantaneous	81360	11.4	1hr	See point source operating requirements below.
321	PM	50	Immediate	Instantaneous	39960	11.3	1hr	See point source operating requirements below.
	SO ₂	500 100	Immediate By 01 April 2020	Instantaneous	39960	11.3	1hr	See point source operating requirements below.
	SO ₂	1700 500	Immediate By 01 April 2020	Instantaneous	39960	11.3	1hr	See point source operating requirements below.
	NO _x	2000 500 – gas based 1000 – all other fuels	Immediate By 01 April 2020 By 01 April 2020	Instantaneous	39960	11.3	1hr	See point source operating requirements below.
320	PM	50	Immediate	Instantaneous	29160	8.2	1hr	See point source operating requirements below.
411	PM	50 30	Immediate By 01 April 2020	Instantaneous	1562040	16.2	1hr	See point source operating requirements below.
	SO ₂	500	Immediate	Instantaneous	1562040	16.2	1hr	See point source operating requirements below.
	NO _x	500	Immediate	Instantaneous	1562040	16.2	1hr	See point source operating requirements below.
	PM	50	Immediate	Instantaneous	*29758.33	*14.5	1hr	See point source operating requirements below.
RH1	SO ₂	500	Immediate	Instantaneous	*29758.33	*14.5	1hr	See point source operating requirements below.
	NO _x	2000 500	Immediate By 01 April 2020	Instantaneous	*29758.33	*14.5	1hr	See point source operating requirements below.
	PM	50	Immediate	Instantaneous	*12254.33	*13.27	1hr	See point source operating requirements below.

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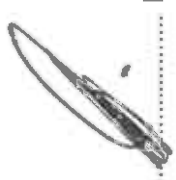
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313	SO ₂	500	Immediate	Instantaneous	*12254.33	*13.27	1hr	See point source operating requirements below.
	NOx	2000 500	Immediate By 01 April 2020	Instantaneous	*12254.33	*13.27	1hr	See point source operating requirements below.
	PM	100 50	Immediate By 01 April 2020	Instantaneous	136080	8.5	1hr	See point source operating requirements below.
	SO ₂ from all other fuels	1700 500	Immediate By 01 April 2020	Instantaneous	136080	8.5	1hr	See point source operating requirements below.
302	NOx	2000 500 – gas based 1000 – all other fuels	Immediate By 01 April 2020 By 01 April 2020	Instantaneous	136080	8.5	1hr	See point source operating requirements below.
	PM	100 50	Immediate By 01 April 2020	Instantaneous	46800	16.5	1hr	See point source operating requirements below.
	SO ₂ from all other fuels	1700 500	Immediate By 01 April 2020	Instantaneous	46800	16.5	1hr	See point source operating requirements below.
	NOx	2000 500 – gas based 1000 – all other fuels	Immediate By 01 April 2020 By 01 April 2020	Instantaneous	46800	16.5	1hr	See point source operating requirements below.
502	PM	50	Immediate	Instantaneous	25448.4	9	1hr	See point source operating requirements below.

* As measured on Report Nr: ESS-650078-2018, Report Date: 13 July 2018

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Point source – operating requirements: Should 24 hour emission limits be exceeded for more than 1 hour the following actions must be implemented immediately:

- Visible dust emissions from Corex: Procedures to safely stop the operation will be implemented and required repair work will be done;
- Midrex: Procedures to safely stop the operation will be implemented and required repair work will be done to scrubber and related control equipment;
- Conarc: Procedures to safely stop the operation will be implemented and required repair work will be done to bag house and related control equipment;
- All other operations not mentioned above will be stopped and corrective actions will be taken immediately.
- Should start-up, maintenance, upset and shutdown conditions exceed a period of 48 hours, Section 30 of the National Environmental management, 1998 (Act No. 107 of 1998), shall apply.

7.4. Point source – emission monitoring and reporting requirements

Point Source Code	Emission Sampling / Monitoring Method	Sampling Frequency	Sampling Duration	Parameters to be Measured	Parameters to be Reported	Reporting Frequency
221	As per approved method: Annexure A of GN 893 and as amended.	Continuous	As per approved method	Particulate matter	Particulate matter	Quarterly
	As per approved method: Annexure A of GN 893 and as amended.	Biannual	As per approved method	SO ₂ and NO _x expressed as NO ₂	SO ₂ and NO _x expressed as NO ₂	Biannually
222	As per approved method: Annexure A of GN 893 and as amended.	Continuous	24 hrs - As per approved method	Particulate matter	Particulate matter	Quarterly
220	As per approved method: Annexure A of GN 893 and as amended.	Continuous	24 hrs - As per approved method	Particulate matter	Particulate matter	Quarterly
225	As per approved method: Annexure A of GN 893 and as amended.	Continuous	As per approved method	Particulate matter	Particulate matter	Quarterly
223	As per approved method: Annexure A of GN 893 and as amended.	Continuous	24 hrs - As per approved method	Particulate matter	Particulate matter	Quarterly
224	As per approved method: Annexure A of GN 893 and as amended.	Continuous	24 hrs - As per approved method	Particulate matter	Particulate matter	Quarterly
321	As per approved method: Annexure A of GN 893 and as amended.	Continuous	As per approved method	Particulate matter	Particulate matter	Quarterly

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320	As per approved method: Annexure A of GN 893 and as amended.	Continuous	As per approved method	Particulate matter	Particulate matter	Quarterly
411	As per approved method: Annexure A of GN 893 and as amended.	Continuous	As per approved method	Particulate matter	Particulate matter	Quarterly
209	As per approved method: Annexure A of GN 893 and as amended.	Biannual	As per approved method	Sulphur Dioxide (SO ₂) & Oxides of nitrogen (NOx expressed as NO ₂)	Sulphur Dioxide (SO ₂) & Oxides of nitrogen (NOx expressed as NO ₂)	Biannually
RH1	As per approved method: Annexure A of GN 893 and as amended.	Biannual	As per approved method	Sulphur Dioxide (SO ₂) & Oxides of nitrogen (NOx expressed as NO ₂)	Sulphur Dioxide (SO ₂) & Oxides of nitrogen (NOx expressed as NO ₂)	Biannually
RH2	As per approved method: Annexure A of GN 893 and as amended.	Biannual	As per approved method	Sulphur Dioxide (SO ₂) & Oxides of nitrogen (NOx expressed as NO ₂)	Sulphur Dioxide (SO ₂) & Oxides of nitrogen (NOx expressed as NO ₂)	Biannually
313	As per approved method: Annexure A of GN 893 and as amended.	Biannual	As per approved method	Sulphur Dioxide (SO ₂) & Oxides of nitrogen (NOx expressed as NO ₂)	Sulphur Dioxide (SO ₂) & Oxides of nitrogen (NOx expressed as NO ₂)	Biannually
302	As per approved method: Annexure A of GN 893 and as amended.	Biannual	As per approved method	Particulate matter	Particulate matter	Biannual
502	As per approved method: Annexure A of GN 893 and as amended.	Biannual	As per approved method	Particulate matter	Particulate matter	Biannual

Condition:

- Emission measurements methods other than those contained in Annexure A of Government Notice No. 893 dated 22 November 2013 may only be used with the written consent of the National Air Quality Officer.
- Emission reports to be submitted to the licensing authority as per abovementioned frequency.

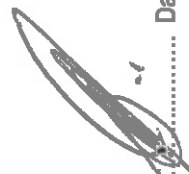
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7.5. Area and/or line source – management and mitigation measures

Area and/or Line Source Code	Area and/or Line Source Description	Description of Specific Measures	Timeframe for Achieving Required Control Efficiency	Method of Monitoring Measures Effectiveness	Contingency Measures
Raw Materials Handling Stockyard	Material Stockpiles	Dust abatement on tipplers. Transfer points enclosed and dust extracted via de-dusting units, dust suppression on stockpiles via application of treated sewerage water.	Immediate	Dust fallout and PM ₁₀ monitoring	As per updated Fugitive EMP
STapping1	Corex fugitives	Extraction system to a bag house with offtake at tapping point and at building roof vents.	Immediate	Dust fallout and PM ₁₀ monitoring	As per updated Fugitive EMP
STapping2	Corex fugitives	Extraction system to a bag house with off take at tapping point and at building roof vents.	Immediate	Dust fallout and PM ₁₀ monitoring	As per updated Fugitive EMP
SConarcS	Furnace Fugitives	Extraction system for building to Bag house.	Immediate	Daily Observations, inspections and dust fallout monitoring	As per updated Fugitive EMP
SConarcN	Furnace Fugitives	Extraction system for building to Bag house.	Immediate	Daily Observations, inspections and dust fallout monitoring	As per updated Fugitive EMP
SMidrexSludge	Granulation Plant fugitives	Enclosed operation	Immediate	Daily Observations, inspections and dust fallout monitoring	As per updated Fugitive EMP
SMidrexTransfer	Granulation Plant fugitives	Enclosed operation	Immediate	Daily Observations, inspections and dust fallout monitoring	As per updated Fugitive EMP
SCorexSlag	Slag Stockpile	Wetting of area during crushing operations	Immediate	Daily Observations, inspections and dust fallout monitoring	As per updated Fugitive EMP
SConarcSlag	Slag Stockpile	Wetting of area during crushing operations	Immediate	Daily Observations, inspections and dust fallout monitoring	As per updated Fugitive EMP
STappingRd	Road	Wetting by water truck and sweeping by road sweeper	Immediate	Daily Observations, inspections and dust fallout monitoring	As per updated Fugitive EMP
STP 1	Iron ore stockpile	Control of moisture content in conjunction with TPT	Immediate	Daily Observations, inspections and dust fallout monitoring	As per updated Fugitive EMP

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SBriquetting	Briquetting Plant	Install overhead canopy over loading hopper. Canopy serves as a mechanism to curb wind working. Install nozzles on the canopy to supply a fine mist to suppress the dust. Implement dust suppression on material stockpile.	Immediate	Daily Observations, inspections and dust fallout monitoring	As per updated Fugitive EMP
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Area and line source – operating requirements:

The following additional mitigation measures to be applied during fugitive emissions from raw materials handling:

- Activate water sprayers for dust suppression and wetting by water tanker and / or truck.
- Fallout dust monitoring must be done as per the requirements of the National Dust Control Regulations R827 of 01 November 2013 and as amended.
- Reports to be submitted to the licencing authority.

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7.6. Routine reporting and record-keeping

Complaints register

The licence holder must maintain a complaints register at its premises, and such register must be made available for inspections. The complaints register must include the following information on the complainant, namely, the name, physical address, telephone number, date and the time when the complaint was registered. The register should also provide space for noise, dust and offensive odours complaints.

Furthermore, the licence holder is to investigate and, monthly, report to the licensing authority in a summarised format on the total number of complaints logged. The complaints must be reported in the following format with each component indicated as may be necessary:

- (a) Source code / name;
- (b) Root cause analysis;
- (c) Calculation of impacts / emissions associated with incidents and dispersion modelling of pollutants, where applicable;
- (d) Measures implemented or to be implemented to prevent recurrence; and
- (e) Date by which measure will be implemented.

The licensing authority must also be provided with a copy of the complaints register. The record of a complaint must be kept for at least 5 (five) years after the complaint was made.

Quarterly reporting

The licence holder must furnish the licensing authority with a quarterly report on the form prescribed by the licensing authority and must attend the West Coast Air Quality Working Group meetings when arranged.

Annual reporting

The licence holder must complete and submit to the licensing authority an annual report. The report must include information for the year under review (i.e. annual year end of the company or calendar year). The report must be submitted to the licensing authority not later than 60 (sixty) days after the end of each reporting period. The annual report must include, amongst others, the following items:

- (a) Pollutant emissions trend;
- (b) Compliance audit report(s);
- (c) Major upgrades projects (i.e. abatement equipment or process equipment); and
- (d) Greenhouse gas emissions.

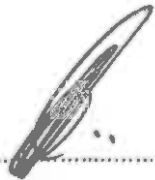
The holder of the licence must keep a copy of the annual report for a period of at least 5 (five) years.

Reporting to the National Atmospheric Emissions Inventory System:

The holder of the licence must in terms of paragraph (19) of GN No. 893 of 22 November 2013 report the information contemplated in paragraph (17) of GN No. 893 to the Internet - based National system in the format required by the National Atmospheric Emissions Inventory System.

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7.7. Investigation

The following investigations are required:

Investigation	Purpose	Completion Date
An updated fugitive emissions management plan must be submitted to the licencing authority.	To identify all fugitive emission sources and their mitigation measures.	31 July 2019
Improve the de-dusting system at the Conarc to properly capture all fugitive emissions.	To prevent emissions escaping into the atmosphere from the Conarc roof and building operations.	31 March 2020
Improve the Corex Cast House de-dusting system to properly capture all fugitive emissions.	To prevent emissions escaping into the atmosphere from the Corex Cast House operations.	31 March 2020
Implement fugitive dust control measures at the: 1. Raw material handling stockpiles and yard area 2. Solid waste stockpile and yard area 3. Scrap and Slag Handling area 4. Corex slag disposal site 5. Conarc Slag disposal site	To prevent fugitive emissions escaping into the environment from waste and raw material handling areas including the associated unpaved roads.	31 March 2020
Implement fugitive dust control measures at the screening plant.	To effectively prevent fugitive dust emissions at the screening plant operations.	31 March 2020
Investigate alternative methods for cooling of iron that causes iron oxide.	To prevent the plant contribution towards the accumulative effect of iron oxide into the environment.	31 March 2020
Implement improved methods to dispose of Conarc dust.	Dispose of Conarc dust in such a way as not to generate fugitive dust within the surrounding environment.	31 March 2020
Investigate and implement best practices for the entire site and plant operations.	To protect the receiving environment and human well-being by continuously improving operations and mitigate emissions from all point and non-point sources of pollution.	Ongoing. Investigations and implementation of best practices to be on a continuous basis. An annual report to be submitted to the licencing authority indicating already implemented projects or proposed projects to be implemented.

8. DISPOSAL OF WASTE AND EFFLUENT ARISING FROM ABATEMENT EQUIPMENT CONTROL TECHNOLOGY

The disposal of any waste and effluent arising from the abatement equipment control technology must comply with the relevant legislation and requirements of the relevant authorities.

Source Code / Name	Waste / Effluent Type	Hazardous Components Present	Method of Disposal
Steel-making	Conarc Dust	Fluoride, manganese	Sold/ Landfilled/ Mixed with sludge 12/9/11/L974/9
	Combustion Chamber Dust	N/A	Landfilled 12/9/11/L974/9
Iron-making	Oxide dust	N/D	Mixed with sludge – sold/ landfilled 12/9/11/L974/9
	Sludge	N/A	Landfilled or sold off 12/9/11/L974/9

9. PENALTIES FOR NON-COMPLIANCE WITH LICENCE AND STATUTORY CONDITIONS OR REQUIREMENTS

Failure to comply with any of the licence and relevant statutory conditions and/or requirements is an offence, and licence holder, if convicted, will be subjected to those penalties as set out in section 52 of the AQA.