WESKUS DISTRIKSMUNISIPALITEIT
WEST COAST DISTRICT MUNICIPALITY

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

This atmospheric emission licence is 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: Combustion Installations
- Subcategory 4.6: Basic Oxygen Furnaces
- Subcategory 4.7: Electric Arc Furnaces (Primary and Secondary)
- Subcategory 4.8: Blast Furnaces
- Subcategory 4.11: Agglomeration Operations
- Subcategory 4.12: Pre-Reduction and Direct Reduction
- Subcategory 5.1: Storage and Handling of Ore and Coal
- Subcategory 5.2: Drying

This AEL replaces previously issued AELs and is valid until 04 December 2028.

The licence holder must submit to the licencing authority a notification of intention to renew the AEL **one (1) year** before the expiry date. The AEL renewal application with all the necessary supporting documentation must be uploaded on to the South African Atmospheric Emission Licence Inventory Portal (SAAELIP) **six (6) months** before the expiry date of the AEL.

The reason for the issue of this atmospheric emission licence is by virtue of an AEL renewal application.

This atmospheric emission licence must be read with supporting documentation as amended.

This atmospheric emission licence is issued with conditions and requirements set out below, which are binding on the holder of this atmospheric emission licence namely **Saldanha Steel (Pty) Ltd.** ("the holder").

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1. ATMOSPHERIC EMISSION LICENCE ADMINISTRATION

Name of the Licensing Authority	West Coast District Municipality
Atmospheric Emission Licence Number	WCWD001
Atmospheric Emission Licence Issue Date	04 December 2023
Atmospheric Emission Licence Type	Atmospheric Emission Licence (Renewal)
Review date, not later than	As determined by the licensing authority

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	129 Yzervarkensrug, Saldanha
Postal Address	Private Bag X11, Saldanha, 7395
Telephone Number (General)	022 709 4000
Industry Sector	Iron and Steelmaking
Name of Responsible Officer (ACO)	Aldrich Louis
Name of Emission Control Officer (ECO)	Shoenay Siebritz
Telephone Number	022 709 4001(ACO) 022 709 4003 (ECO)
Cell Phone Number	073 676 1631(ACO) 073 215 1390 (ECO)
Fax Number	022 709 4200
Email Address	aldrich.louis@arcelormittal.com (ACO) Shoenay.Siebritz@arcelormittal.com (ECO)
After Hours Contact Details	073 676 1631 (ACO) 073 215 1390 (ECO)
Land Use Zoning as per Town Planning Scheme	Industrial

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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, Portion 8 and 13 Yzervarkensrug No. 127 and portion of farm 195)
Coordinates of Approximate Centre of Operations	- 32.978435 18.022642
Property Registration Number (Surveyor-General Code)	T60028-1997
Extent (km^2)	400 ha
Elevation Above Mean Sea Level (m)	116
Province	Western Cape
District Municipality	West Coast District Municipality
Local Municipality	Saldanha Municipality
Designated Priority Area	NA

4. GENERAL CONDITIONS

4.1. Process and ownership changes

The holder of this 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 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 licensing 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 licensing 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 the licensing authority in writing.

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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 effected 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 Steel employs operational equipment and technologies to convert lump ore into steel and Hot Rolled Coil (HRC), with the following key processes being undertaken:

Raw Materials handling and Stockyard area:

Raw Materials areas and the Stockyard area are located west of the plant are used for the bulk storage and handling of Iron Ore, Fluxes, and Coal, offloading and storage of various other raw materials. These commodities are transported via ship and rail and offloaded on the stockyard via conveyor belts and conveying via transfer stations equipped with dust extraction systems, various by-products are also stored on the stockyard and at 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, transported via a conveyor belt, 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 can only be used during the combustion 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 (transported via conveyor belts) into solid sponge iron (a highly metallised product suitable for steel commonly referred to as DRI [directly reduced iron]). DRI can be produced by also using pellets only.

The Steel Meltshop

The liquid iron (transported via ladles) and DRI (transported via conveyor belts) are converted into steel at the Conarc 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

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Furnace. Ferrous 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 Heating Furnace (LHF) & Vacuum Oxygen Decarburizer (VOD). The Conarc at the Steel Meltshop may also operate on Scrap steel only as an input material to produce steel.

The Thin Slab Caster (TSC)

At the Thin Slab Caster (TSC) the liquid steel from the LHF and or VOD in the Steel Meltshop, transported via ladles and overhead cranes in Ladles are continuously cast into slabs that vary from 50 - 100 mm thickness and from 900 - 1560 mm in width.

Roller Hearth Furnace (RHF)

After casting at the TSC, the slabs proceed directly into a long (about 180 m) temperature equalising Roller Hearth Furnace (RHF) where the temperature of the slabs is increased and maintained according to specification, for the rolling of the steel. The Corex gas and/or LPG is used as fuel in this RHF.

Hot Strip Mill

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

The steel coils are transferred from the Hot Strip Mill to the Temper Mill with a walking beam. The Temper Mill 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 utilized 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.

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5.2. Facility Wide Listed Activities with Regulatory Application

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:

Rule Category	Rule Number	Ruler Name & Description of the Listed Activity
SEC21	SA0402 Subcategory 4.2: Combustion Installations	Combustion installations not used 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.

(ii) Where co-feeding with waste materials with calorific value allowed in terms of the Waste Disposal Standards published in terms of the Waste Act, 2008 (Act 59 of 2008) occurs, additional requirements under subcategory 1.6 shall apply.

(iii) Additional requirements under subcategory 1.6 shall continue to apply even after the waste ceases to be waste in terms of section 1 of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008), as amended by the National Environmental Management: Waste Amendment Act, 2014 (Act 26 of 2014).

Rule Category	Rule Number	Ruler Name & Description of the Listed Activity
SEC21	SA0406 Subcategory 4.6: Basic Oxygen Furnaces	Basic oxygen furnaces in the steel making industry.

(a) The following special arrangement shall apply –

Secondary fume capture installations shall be fitted to all new furnace installations.

Rule Category	Rule Number	Ruler Name & Description of the Listed Activity
SEC21	SA0407 Subcategory 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.

Rule Category	Rule Number	Ruler Name & Description of the Listed Activity
SEC21	SA0408 Subcategory 4.8: Blast Furnaces	Blast furnace operations.

(a) The following special arrangement shall apply-

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Secondary fume capture installations shall be fitted to all new furnace installations.

Rule Category	Rule Number	Ruler Name & Description of the Listed Activity
SEC21	SA0411 Subcategory 4.11: Agglomeration Operations	Production of pellets or briquettes using presses, inclined discs or rotating drums.

Rule Category	Rule Number	Ruler Name & Description of the Listed Activity
SEC21	SA0412 Subcategory 4.12: Pre-Reduction and Direct Reduction	Production of pellets or briquettes using presses, inclined discs or rotating drums.

Rule Category	Rule Number	Ruler Name & Description of the Listed Activity
SEC21	SA0501 Subcategory 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.

Rule Category	Rule Number	Ruler Name & Description of the Listed Activity
SEC21	SA0502 Subcategory 5.2: Drying	The drying of mineral solids including ore, using dedicated combustion installations

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	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

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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.	Continuous
Ladle Heating Furnace	Treats molten steel for casting.	Continuous
VOD (Vacuum oxygen decarburising) (Mothballed)	Treats molten steel for casting.	Continuous
Mobile / Permanent Briquetting Plant	Briquetting of fine metallurgical materials generated on site.	Continuous
Temper Mill	Improves steel flatness quality	Continuous
Iron Granulation Plant	Iron Granulation Plant produces iron granules for Steelmaking.	Intermitted
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 tundish after granulation by lancing	Intermitted

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	24 hours	365 Days
Corex	24 hours	365 Days
Midrex	24 hours	365 Days
Iron Granulation Plant and Conarc Furnace	24 hours	365 Days
Conarc	24 hours	365 Days
Ladle heating furnace	24 hours	365 Days
Vacuum Oxygen Decarburising Plant (VOD) (Mothballed)	24 hours	365 Days
Thin Slab Caster	24 hours	365 Days
Roller hearth furnace and hot strip mill	24 hours	365 Days
Temper mill	24 hours	365 Days
Coal drying Plant	24 hours	365 Days
Air Liquid	24 hours	365 Days
Slag Granulation Plant	24 hours	365 Days
Sludge Granulation Plan	24 hours	365 Days
VOD Boiler	24 hours	365 Days
Lancing Booth at IGP	24 hours	365 Days
HSM	24 hours	365 Days
Mobile / Permanent Briquetting Plant	24 hours	365 Days

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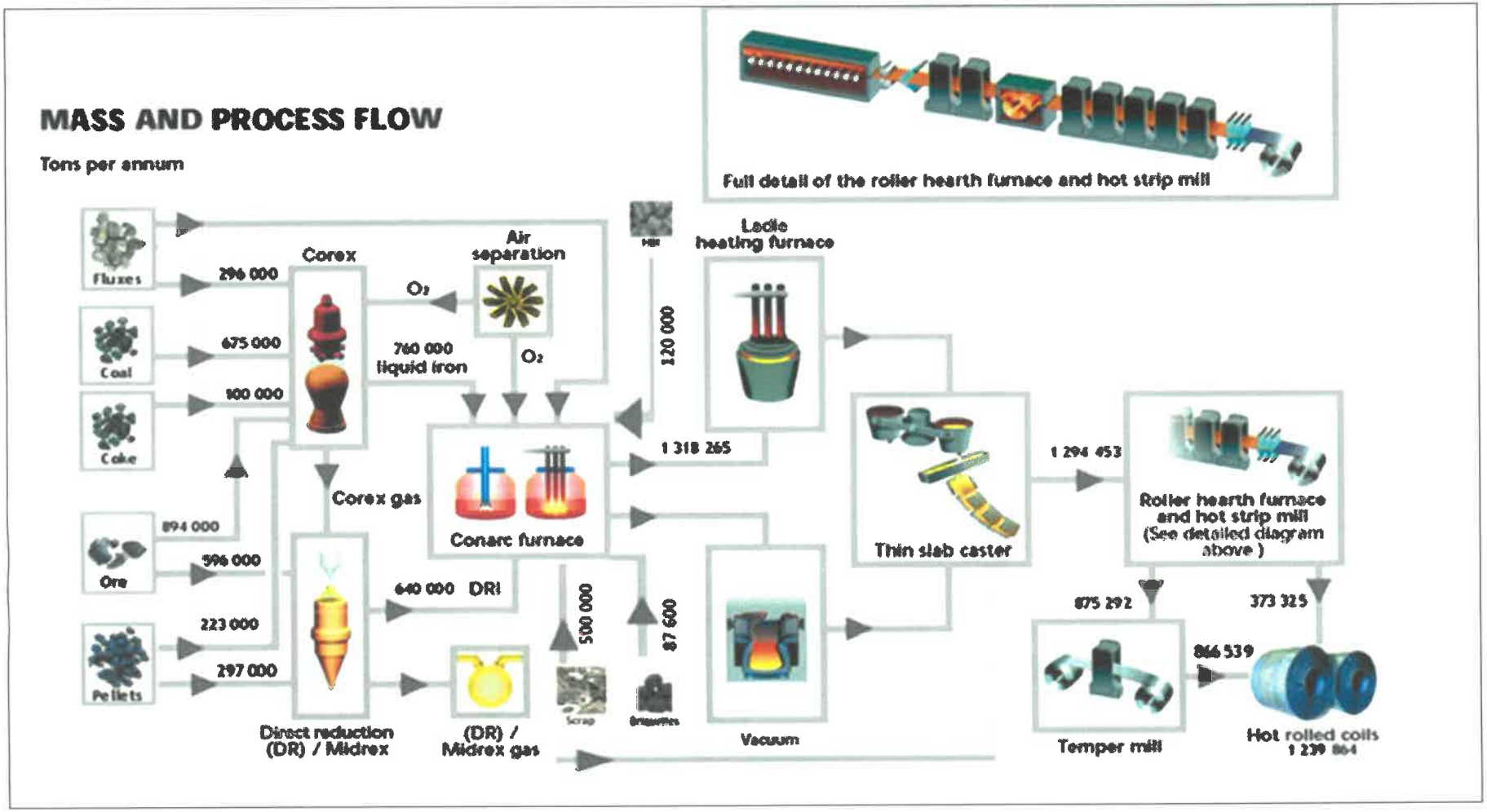
5.5. Graphical process information

Process flow diagram:



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Aerial view of the site and the surrounding land-use:

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

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Receiving environment overview:

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Site Location

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Point Sources:

Point Source Code	Source Name
221	Coal Dryer
222	Coal transport
220	Coal blending and screening
225	Corex Cast House
223	Coal Stock House
224	Ore Stock House
321	Midrex Metallised Fines
320	Midrex Product De-dusting
411	Corex
215	Flare
205	Granulation Plant: Slag
501	Casting Stack
RH1	Fisher-Hearth Furnace Stack #1
RH2	Fisher-Hearth Furnace Stack #2
313	Midrex gas reform stack
406	HRSG Boiler
303	Furnace de-dusting : Midrex
502	Alloy Store De-dusting Unit

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Fugitive emission sources:

Ref	Description	Ref	Description
1	Transfer Station 1	10	Rotary Tippler
2	Transfer Station 2	11	Coal Screen Station
3	Transfer Station 3	12	Coal Blending Station
4	Transfer Station 4	13	Coal Drying Plant
5	Transfer Station 5	14	Stockhouse (224-1)
6	Transfer Station 6	15	Tapping Isle South (Corex)
7	Transfer Station 7	16	Tapping Isle North (Corex)
8	Transfer Station 8	17	Conarc South
9	Side Tippler	18	Conarc North

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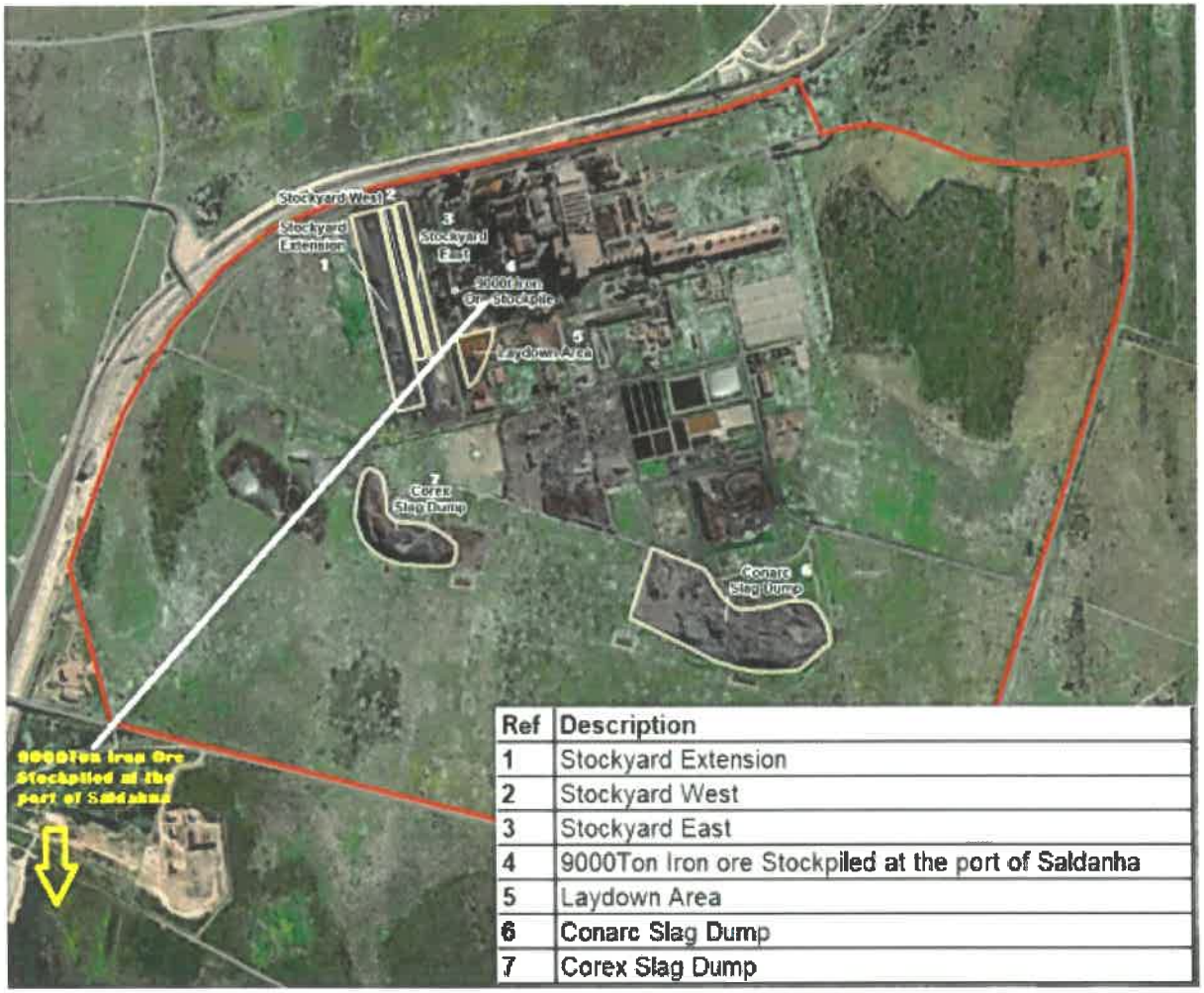
Key Area Source Emissions:



Ref	Description
1	Stockyard Extension
2	Stockyard West
3	Stockyard East
4	9000Ton Iron ore Stockpiled at the port of Saldanha
5	Laydown Area
6	Conarc Slag Dump
7	Corex Slag Dump

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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	Nm^3/h
Nitrogen	30 000	Nm^3/h
Argon	600	Nm^3/h
Oxygen (99.5%)	20 000	Nm^3/h
Oxygen (95%) purity	75 000	Nm^3/h
Sishen lump ore & iron ore pallets	2 832 000	Tons / Annum
Dolomite	228 000	Tons / Annum
Limestone	162 000	Tons / Annum
Burnt lime	138 000	Tons / Annum
Scrap	500 000	Tons / Annum
Imported DRI/HBI	120 000	Tons / Annum
Minor components	720 000	Tons / Annum
Lump Lime	98 000	Tons / Annum
Burnt Dolomite	65 000	Tons / Annum
Raw Dolomite	282 000	Tons / Annum
Bulk Coal	1140 000	Tons / Annum
Coke	180 000	Tons / Annum
Fine Lime	24 000	Tons / Annum
Steel Plant Slag and Steel Scrap, Liquid Steel, Cast Steel Slab, Tundish Sculls, Unrolled Slab, Steel Strip	300 000	Tons / Annum
Other (Recycled materials and by-products)	150 000	Tons / 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 Permitted Production Capacity (Quantity)	Design Production Capacity (Quantity)	Actual Production Capacity (Quantity)	Units (Quantity / Period)
Air Cooled Corex slag	50 000	50 000	50 000	Tons / Annum
Conarc slag	276 000	276 000	276 000	Tons / Annum
Refractories	12 000	12 000	12 000	Tons / Annum
By product Iron	166 506	166 506	166 506	Tons / Annum
Granulated Corex Slag	310 000	310 000	310 000	Tons / Annum
Conarc Dust	30 000	30 000	30 000	Tons / Annum
Corex Classifier Sand	14 000	14 000	14 000	Tons / Annum
Midrex Classifier Sand	1 400	1 400	1 400	Tons / Annum
Mill scale	12 000	12 000	12 000	Tons / Annum
Caster Scale	13 000	13 000	13 000	Tons / Annum

*Note: The above mentioned by–products are either re-used in the process or sold if markets are available

6.3. Materials used in energy sources

Materials for Energy Source	Maximum Permitted Consumption Rate	Designated Consumption Rate	Actual Consumption Rate	Materials Characteristics
Coal	950 000 Ton/Annum	950 000 Ton/Annum	950 000 Ton/Annum	Sulphur content %: 0.5 – 0.9 Ash content %: 14-25
Coke	150 000 Ton/Annum	150 000 Tons/annum	150 000 Tons/annum	Sulphur content %: 0.4 – 0.9 Ash content %: 12-15
Electricity	N/A MWh/annum	N/A MWh/annum	N/A MWh/annum	n/a
LPG	36 000 Tons/annum	36 000 Tons/annum	36 000 Tons/annum	n/a
Carbonaceous Product	30 000 Tons/annum	30 000 Tons/annum	30 000 Tons/annum	Sulphur content %: 0.5 – 2 Ash content %: 20
Paraffin	1 800 kl/annum	1 800 kl/annum	1 800 kl/annum	n/a
Diesel	2 600 L/annum	2 600 L/annum	2 600 L/annum	n/a
Corex producer gas	1500000000 Nm^3/yr	1500000000 Nm^3/yr	1500000000 Nm^3/yr	n/a

6.4. Emission Units (Sources of atmospheric emission)

6.4.1. Emission Unit – Stack Parameters (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 (m^3/hr)	Actual Gas Exit Velocity (m/s)	Emission Hours	Type of Emission (Continuous / Batch)
		South	East								
SV0001 (221)	Coal Drier	-32.9798	18.0184	26	~7	2.5	42.3	186120	10.7	24	Continuous
SV0002 (222)	Coal Transport/	-32.9797	18.0185	26	~7	1.3	29.5	32040	6.9	24	Continuous
SV0003 (220)	Coal Blending & Screening	-32.9778	18.0179	25	~4	1	29.7	14040	4.96	24	Continuous
SV0004 (225)	Corex Cast House	-32.9796	18.02	26	~5	4.8	57.2	723240	11.2	24	Continuous
SV0005 (223)	Coal Stock House Dedusting	-32.9793	18.0201	44	~5	1.3	23.2	48600	10.3	24	Continuous
SV0006 (224)	Ore Stock House Dedusting	-32.9789	18.0202	16	~7	1.6	23.9	81360	11.4	24	Continuous
SV0007 (321)	Midrex Metallized Fines Wet Scrubber	-32.9761	18.0207	30	~2	1.1	27.7	39960	11.3	24	Continuous
SV0008 (320)	Midrex Product Dedusting Wet Scrubber Stack	-32.9768	18.0195	30	~12	1.1	44.0	29160	8.2	24	Continuous

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SV0009 (411)	Conarc Dedusting Stack	-32.9799	18.0213	45	~2	5.8	79.3	1562040	16.2	24	Continuous
SV0011 (RH1)	Roller Hearth Furnace Stack #1	-32.9784	18.02411	16	~5	1.4	299.0	34504	18.7	24	Continuous
SV0012 (RH2)	Roller Hearth Furnace Stack #2	-32.9782	18.0249	16	~5	0.78	167.1	15956	11.8	24	Continuous
SV0013 (313)	Midrex gas heater stack	-32.9773	18.0204	30	~6	2.4	354.5	463158	14.3	24	Continuous
SV0014 (302)	Furnace de-dusting (Midrex)	-32.977	18.0197	30	~6	1	42.4	36294	17.8	24	Continuous
SV0015 (502)	Alloy Store De-dusting Unit	-32.9753	18.03	4	~2	1	29.5	19298	6.8	24	Continuous
SV0024 (209)	Granulation Plant (Slag)	-32.978872	18.021628	40	~15	2.5	46.7	98640	5.6	24	Continuous
SV0025 (405)	VOD Boiler (Mothballed)	-32.9783	18.0228	50	~2	0.9	236.0	31680	13.4	24	Continuous
SV0026 (503)	Stock House Extension Outlet	-32.9795	18.0189	4	~2	1	24	Not determined	Not determined	24	Continuous
SV0027 (927)	Iron Granulation Plant (IGP)	-32.982024	18.02202	4	~2	1	60	Not determined	Not determined	24	Continuous
CD0029	Flare	-32.976488	18.021215	80	~50	1	Not determined			24	Continuous
501	Caster Stack	-32.978764	18.023142	16	~2	1.3	Not determined			24	Continuous

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6.4.2. AREA AND/OR LINE SOURCE PARAMETERS

Note: Details are as per Fugitive EMP

Emission Unit (EU) 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)
RG0005	Steelmaking Stockpile	Open Storage Stockpile	-32.97861	18.01667	0	740	200	24	Continuous
RG0006	Steelmaking - Transfer Points	Transfer points	-32.97944	18.01833	~3	~8	~4	24	Continuous
RG0027	Steelmaking - Conveyor	Conveyors CV111, CV102, CV105 and CV 112; Steelmaking - Conveyor 101, 103, 107, 108, 143F01, 145F11, 145F01, 147F01, 236F01, 221F01, 521F52/1, 521F52	-32.97694	18.02222	~1	~3000	~1	24	Continuous
RG0029	Steelmaking - Haul Roads	Main Paved Road Onsite Haul Road (to Terminal) Truck Entrance (to Weighbridge)	-32.98194	18.02278	0	2500	~9	24	Continuous
RG0030	Steelmaking - Fugitives	Fugitives from the Stock House & Coal Drying Plant	-32.97667	18.02028	~5	~300	~1	24	Continuous
EU0130	Screening	Coal Screen House	-32.9778	18.0179	~4	30	25	24	Continuous
EU0131	Blender	Coal Blending Station	-32.9778	18.0179	~4	30	25	24	Continuous
EU0135	Fugitives	Coal drying plant	-32.9798	18.0184	26	20	15	24	Continuous
EU0136	Transfer point	Side tippler	-32.9725	18.025	0	30	10	24	Continuous

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EU0138	STapping 1 (Tapping aisle South)	Corex fugitives	-32.979374	18.021273	25	27.83	33.11	24 Hours	Continuous
EU0140	STapping 2 (Tapping aisle North)	Corex fugitives	-32.978839	18.021144	25	27.83	33.11	24 Hours	Continuous
EU0142	SConarc S	Conarc Building South (Furnace fugitives)	-32.978775	18.022827	50	6.37	61.85	24 Hours	Continuous
EU0144	SConarc N	Conarc Building North (Furnace fugitives)	-32.978002	18.022633	50	4.9	23.12	24 Hours	Continuous
EU0145	Corex slag dump	Slag Stockpile	-32.989828	18.02624	30	257	417	24 Hours	Continuous
EU0148	Conarc Slag Dump	Slag Stockpile	-32.986564	18.013989	30	208	352	24 Hours	Continuous
EU0151	9000t iron ore Stockpile	Iron ore stockpile	-32.9795	18.0189	5	62	55	24 Hours	Continuous
EU0153	Briquetting Plant (Mobile plant)	Briquetting Plant	-32.97694	18.0175	4.3	22	12	24 Hours	Continuous
EU0155	Open Storage Pile	VDD Coal Stockpile	-32.97694	18.0175	4.3	22	12	24 Hours	Continuous
EU0158	Open Storage Pile	Coal Stockpile 1	-32.98056	18.01917	20	137	24	24 Hours	Continuous
EU0159	Open Storage Pile	Coal Stockpile 2	-32.98056	18.01917	20	127	24	24 Hours	Continuous
EU0160	Open Storage Pile	VDD Coal Stockpile	-32.98	18.01778	20	123	24	24 Hours	Continuous
EU0162	Open Storage Pile	Limestone Stockpile	-32.98194	18.01833	20	70	24	24 Hours	Continuous
EU0163	Open Storage Pile	Coke (STP 20) Stockpile	-32.98056	18.01722	20	12	12	24 Hours	Continuous
EU0164	Open Storage Pile	Limestone Stockpile	-32.98194	18.01833	20	70	24	24 Hours	Continuous
EU0166	Open Storage Pile	Coke Stockpile	-32.98056	18.01722	20	115	24	24 Hours	Continuous
EU0168	Open Storage Pile	Pellets Stockpile	-32.98056	18.01778	20	115	24	24 Hours	Continuous
EU0169	Open Storage Pile	Pellets Stockpile	-32.98056	18.01778	20	115	24	24 Hours	Continuous

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EU0171	Open Storage Pile	Iron Ore Stockpile	-32.9795	18.0189	20	70	42	24 Hours	Continuous
EU0174	Open Storage Pile	Iron Ore Stockpile	-32.9795	18.0189	20	70	42	24	Continuous
EU0175	Open Storage Pile	Dolomite Stockpile	-32.98167	18.01806	20	24	24	24 Hours	Continuous
EU0177	Open Storage Pile	Dolomite Stockpile	-32.98167	18.01806	20	24	24	24 Hours	Continuous
EU0180	Open Storage Pile	Coke (STP 17) Stockpile	-32.98056	18.01722	10	12	12	24 Hours	Continuous
EU0182	Open Storage Pile	Coke Stockpile	-32.98056	18.01722	10	12	12	24 Hours	Continuous
EU0185	Open Storage Pile	Limestone Stockpile	-32.98194	18.01833	20	70	24	24 Hours	Continuous
EU0186	Open Storage Pile	DRI Stockpile	-32.97778	18 0.9333	10	12	40	24 Hours	Continuous
EU0188	Open Storage Pile	Coke Chinese Stockpile	-32.98056	18.01722	20	207	24	24 Hours	Continuous
EU0189	Open Storage Pile	Limestone Stockpile	-32.98194	18.01833	20	70	24	24 Hours	Continuous
EU0191	Open Storage Pile	DRI Stockpile	-32.97778	18 0.9333	10	12	40	24 Hours	Continuous
EU0193	Open Storage Pile	DRI Stockpile	-32.97778	18 0.9333	10	12	40	24 Hours	Continuous
EU0196	Open Storage Pile	DRI/Pellets Fines Stockpile	-32.98111	18 0.9833	10	12	40	24 Hours	Continuous
EU0197	Open Storage Pile	Pellet (Black) Stockpile	-32.98111	18 0.9833	10	12	40	24 Hours	Continuous
EU0199	Open Storage Pile	DRI Clusters Stockpile	-32.98111	18 0.9833	10	12	40	24 Hours	Continuous
EU0202	Open Storage Pile	99% Dolomite Fines + 1% Coal Mix Stockpile	-32.98167	18.01806	10	12	40	24 Hours	Continuous
EU0204	Open Storage Pile	Pellets Stockpile	-32.98056	18.01778	20	115	24	24 Hours	Continuous
EU0207	Open Storage Pile	Coke Fines Stockpile	-32.98111	18 0.9833	10	12	20	24 Hours	Continuous
EU0209	Open Storage Pile	Oxide Waste Stockpile	-32.98111	18 0.9833	10	12	20	24 Hours	Continuous
EU0210	Open Storage Pile	Caster Scale Stockpile	-32.98111	18 0.9833	10	12	20	24 Hours	Continuous
EU0212	Open Storage Pile	Waste Mix 10 Stockpile	-32.98111	18 0.9833	10	12	20	24 Hours	Continuous
EU0214	Open Storage Pile	RHF Scale Stockpile	-32.98111	18 0.9833	10	12	20	24 Hours	Continuous
EU0215	Open Storage Pile	Screened Classifier Sands	-32.98111	18 0.9833	10	12	20	24 Hours	Continuous

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EU0216	Open Storage Pile	Coke Chinese Stockpile	-32.98111	18 0.9833	20	12	20	24 Hours	Continuous
EU0218	Open Storage Pile	Screened Shaft Cleaning Mat Stockpile	-32.98111	18 0.9833	10	12	20	24 Hours	Continuous
EU0219	Open Storage Pile	Screened RHF Scale Stockpile	-32.98111	18 0.9833	10	12	20	24 Hours	Continuous
EU0220	Open Storage Pile	Classifier Sand Stockpile	-32.98111	18 0.9833	10	12	20	24 Hours	Continuous
EU0222	Open Storage Pile	Medium Ore (6 - 12mm) Stockpile	-32.97861	-32.97861	20	12	40	24 Hours	Continuous
EU0225	Open Storage Pile	Iron Ore Fines (6 - 8mm) Stockpile	-32.97861	18.01556	10	12	60	24 Hours	Continuous
EU0227	Open Storage Pile	Iron Ore Fines (Red Square) Stockpile	-32.97806	18.02	10	12	20	24 Hours	Continuous
EU0228	Open Storage Pile	Iron Ore (Red Square) Stockpile	-32.97806	18.02	10	12	20	24 Hours	Continuous
EU0230	Open Storage Pile	Iron Ore (6 - 8mm) Stockpile	-32.97861	18.01556	10	12	60	24 Hours	Continuous
EU0232	Open Storage Pile	Iron Ore Fines (<6mm) Stockpile	-32.97861	18.01556	10	12	60	24 Hours	Continuous
EU0235	Conveyor	Conveyor 101, 103, 107, 108, 143F01, 145F11, 145F01, 147F01, 236F01, 221F01, 521F52/1, 521F52	-32.97806	18.01833	~2	~3000	~2	24 Hours	Continuous
EU0237	Fugitive dust	Main Paved Road Onsite	-32.98194	18.02278	0	2501	10	24 Hours	Continuous
EU0239	Fugitive dust	Haul Road (to Terminal)	-32.98028	18.00833	0	3219	10	24 Hours	Continuous
EU0244	Fugitive dust	Truck Entrance (to Weighbridge)	-32.98028	18.00833	0	1036	10	24 Hours	Continuous
EU0246	Drier	Coal Drier	-32.9798	18.0184	26	26	2.5	24 Hours	Continuous
EU0247	Fugitives	Coal Transport/Dedusting Stack	-32.9797	18.0185	26	26	7	24 Hours	Continuous

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EU0249	Fugitives	Coal Blending & Screening Dedusting Stack	-32.9778	18.0179	25	25	4	24 Hours	Continuous
EU0251	Furnace	Corex Cast House Stack	-32.9796	18.02	26	26	5	24 Hours	Continuous
EU0258	Fugitives	Coal Stock House Dedusting Stack	-32.9793	18.0201	44	5	1.3	24 Hours	Continuous
EU0260	Fugitives	Ore Stock House Dedusting Stack	-32.9789	18.0202	16	16	1.6	24 Hours	Continuous
EU261	Midrex Sludge Granulation Plant	Granulation Plant fugitives	-32.978599	18.020368	15	15	8	24 Hours	Continuous
EU262	Midrex Sludge Granulation Plant Transfer Point	Granulation Plant fugitives	-32.977578	18.019994	25	25	8	24 Hours	Continuous
EU263	Road from Harsco Metals to tapping aisle	Road	-32.982375	18.022708	0	414	16	24 Hours	Continuous

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7. CONTROL DEVICES, EMISSION UNITS, AND REPORTING GROUPS (APPLIANCES AND MEASURES TO PREVENT AIR POLLUTION)

7.1. CONTROL DEVICES (APPLIANCES AND CONTROL MEASURES)

Associated EU Code	Emission Unit			Control Device (Abatement Equipment Control Technology)							
	Appliance / Process Equipment Number	Appliance Serial Number	Appliance Type / Description	Control Device Name and Model	Control Device Manufacture Date	Commission Date	Date of Significant Modification / Upgrade	Device Type	Design Capacity	Minimum Control Efficiency (%)	Minimum Utilisation (%)
CD0020	RC197 592 593	N/A	Coal dust bin & coal line loading equipment (pneumatic conveyors)	Scheuch	1997	1998	N/A	Bag Filter	N/A	98	96
CD0022	RC198	N/A	Coal blending & screening de-dusting	Scheuch	1997	1998	N/A	Bag Filter	N/A	98	96
CD0023	RC192	N/A	Coal transport dedusting	Scheuch	1997	1998	N/A	Bag Filter	N/A	98	96
CD0024	RC194, 195 &196	N/A	Coal drier Dedusting	Scheuch	1997	1998	N/A	Bag Filter	N/A	98	96
CD0025	RC291	N/A	Oxide stock house dedusting	Scheuch	1997	1998	N/A	Bag Filter	N/A	98	96

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CD0026	RC292	N/A	Coal stock house dedusting	Scheuch	1997	1998	N/A	Bag Filter	N/A	98	96
CD0027	RC391	N/A	Corex top dedusting	Unknown	1997	1998	N/A	Bag Filter	N/A	98	96
CD0028	RC491	N/A	Cast house dedusting	Scheuch	1997	1998	2004	Bag Filter	N/A	98	96
CD0029	Unknown	N/A	Corex flare	Unknown	1997	1998	N/A	Stack	N/A	98	96
CD0030	RD491	N/A	Midrex Metallised Fines	Scrubber: VAI, Fan: Rand Blower	1997	1998	N/A	Wet scrubber	N/A	98	96
CD0031	RD493	N/A	Midrex Product Dedusting & Remet	Scrubber: VAI, Fan: Rand Blower	1997	1998	N/A	Wet scrubber	N/A	98	96
CD0032	RD294	N/A	DR shaft/ furnace dedusting (vibro discharge)	Fan: Robinson Industries	1997	1998	N/A	Wet scrubber	N/A	98	96
CD0033	RD382	N/A	DR flue gas stack DO3	Bloom waste gas heater	1997	1998	N/A	Forced draft, low NOx combustion chamber	N/A	98	96
CD0034	430DB30	N/A	Steel plant filter / Elephant house dedusting	N/A	1997	1998	N/A	Bag filter	N/A	98	96

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CD0035	R1.498	N/A	Raw Materials	N/A	1997	1998	N/A	Bag filter	N/A	98	96
CD0036	TBC	N/A	Roller Hearth Furnace	N/A	1997	1998	N/A	Heating Chamber	N/A	98	96

Control devices, emission units, and reporting groups conditions:

7.1.1 Ensure that all extraction equipment is maintained and serviced as per manufacturers specifications in order to ensure that required extraction flow is maintained, as well as all leaks in extraction system are timeously repaired.

7.1.2 Ensure baghouses are maintained with emission tests undertaken to confirm control efficiency remains high and emission standards (where applicable) are met.

7.1.3 Where vehicles are permitted to access the stockpile yards, ensure speed controls are implemented and enforced.

7.1.4 Where possible, do not undertake material handling activities during windy conditions. Conditions exceeding 10 m/s, and blowing directly towards the nearest receptors, should be considered as windy.

7.1.5 The wetting of roads to be ensured to prevent vehicular generated fugitive dust.

7.2. Reporting Group / Emission Unit – maximum emission rates (under normal working conditions)

RG/EU Code	Activity	Pollutant Name	Maximum Release Rate			Duration of Emissions
			(mg/Nm³)	Date to be Achieved By	Average Period	
EU0246 (Coal Drier) (Sub.Cat: 5.2)	PM	Particulate Matter	50	Immediately	24 Hours	Continuous
	SO_2	Sulphur Dioxide	1000		1 Hour	
	NO_x	Nitrogen Oxide	500			
EU0247 (Coal Transport) (Sub.Cat: 5.1)	PM	Particulate Matter	50	Immediately	24 Hours	Continuous
EU0249 (Coal Blending and Screening)	PM	Particulate Matter	50	Immediately	24 Hours	Continuous

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(Sub.Cat: 5.1)						
EU0251 (Corex Cast House) (Sub.Cat: 4.8)	PM	Particulate Matter	30	Immediately	24 Hours	Continuous
	SO_2	Sulphur Dioxide	500		1 Hour	
	NO_X	Nitrogen Oxide	500			
EU0258 (Coal Stock House) (Sub.Cat: 5.1)	PM	Particulate Matter	50	Immediately	24 Hours	Continuous
EU0260 (Ore Stock House) (Sub.Cat: 5.1)	PM	Particulate Matter	50	Immediately	24 Hours	Continuous
EU0262 (Conarc Dedusting stack) (Sub.Cat: 4.6 & 4.7)	PM	Particulate Matter	30	Immediately	24 Hours	Continuous
	SO_2	Sulphur Dioxide	500		1 Hour	
	NO_X	Nitrogen Oxide	500			
EU0264 (Roller Hearth Furnace #1) (Sub.Cat: 3.1 & 4.2)	PM	Particulate Matter	50	Immediately	24 Hours	Continuous
	SO_2	Sulphur Dioxide	500		1 Hour	
	NO_X	Nitrogen Oxide	500			
EU0266 (Roller Hearth Furnace #2) (Sub.Cat: 3.1 & 4.2)	PM	Particulate Matter	50	Immediately	24 Hours	Continuous
	SO_2	Sulphur Dioxide	500		1 Hour	
	NO_X	Nitrogen Oxide	500			

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EU0268 (Midrex gas heater) (Sub.Cat: 4.12)	SO_2 (from all other fuels)	Sulphur Dioxide	500	Immediately	1 Hour	Continuous
	NO_x	Nitrogen Oxide	500 – gas based 1000 – all other fuels			
EU0270 Furnace de-dusting: Midrex (Sub.Cat: 4.12)	PM	Particulate Matter	50	Immediately	24 Hours	Continuous
	SO_2 (from all other fuels)	Sulphur Dioxide	500		1 Hour	
	NO_x	Nitrogen Oxide	500 – gas based 1000 – all other fuels			
EU0273 (Alloy store de-dusting) (Sub.Cat: 5.1)	PM	Particulate Matter	50	Immediately	24 Hours	Continuous
EU0278 (VOD Boiler – Mothballed 2008)	TBC	TBC	TBC	TBC	TBC	TBC
EU0284 (Midrex Product Dedusting Wet Scrubber)	PM	Particulate Matter	50	Immediately	24 Hours	Continuous
EU0286 (Midrex Metalized Fines – Wet Scrubber)	PM	Particulate Matter	50	Immediately	24 Hours	Continuous

Reporting Group / Emission Unit – maximum emission rates (under normal working conditions): Conditions

7.2.1 Ensure that all extraction equipment is maintained and serviced as per manufacturers specifications in order to ensure that required extraction flow is maintained, as well as all leaks in extraction system are timeously repaired.

7.2.2 Ensure baghouses are maintained with emission tests undertaken to confirm control efficiency remains high and emission standards (where applicable) are met.

7.2.3 Where possible, do not undertake material handling activities during windy conditions. Conditions exceeding 10 m/s, and blowing directly towards the nearest receptors, should be considered as windy.

7.2.4 Provide emission values as being measured under normal conditions of 273 K, 101. 3 kPa, specific oxygen percentage and dry gas.

7.3. Reporting Group / Emission Unit - maximum emission rates (under start-up, maintenance and shut-down conditions)

RG/EU Code	Activity	Pollutant Name	Maximum Release Rate		Average Period (Instantaneous, Hourly, Daily, Monthly, Annually)	Maximum Gas Volumetric Flow (m^3/hr)	Maximum Gas Exit Velocity (m/s)	Emission Hours	Permitted Duration of Emissions
			(mg/Nm^3)	Date to be Achieved By					
EU0246 (Coal Drier) (Sub.Cat: 5.2)	PM	Particulate Matter	50	Immediate	Instantaneous	186120	10.7	24 Hours	See point source operating requirements below
	SO_2	Sulphur Dioxide	1000					1 Hour	
	NO_X	Nitrogen Oxide	500						
EU0247 (Coal Transport) (Sub.Cat: 5.1)	PM	Particulate Matter	50	Immediate	Instantaneous	32040	6.9	24 Hours	See point source operating requirements below
EU0249 (Coal Blending and Screening) (Sub.Cat: 5.1)	PM	Particulate Matter	50	Immediate	Instantaneous	14040	4.96	24 Hours	See point source operating requirements below

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EU0251 (Corex Cast House) (Sub.Cat: 4.8)	PM	Particulate Matter	30	Immediate	Instantaneous	723240	11.2	24 Hours	See point source operating requirements below
	SO_2	Sulphur Dioxide	500					1 Hour	
	NO_X	Nitrogen Oxide	500						
EU0258 (Coal Stock House) (Sub.Cat: 5.1)	PM	Particulate Matter	50	Immediate	Instantaneous	486000	10.3	24 Hours	See point source operating requirements below
EU0260 (Ore Stock House) (Sub.Cat: 5.1)	PM	Particulate Matter	50	Immediate	Instantaneous	81360	11.4	24 Hours	See point source operating requirements below
EU0262 (Conarc Dedusting stack) (Sub.Cat: 4.6 & 4.7)	PM	Particulate Matter	30	Immediately	Instantaneous	1562040	16.2	24 Hours	See point source operating requirements below
	SO_2	Sulphur Dioxide	500					1 Hour	
	NO_X	Nitrogen Oxide	500						
EU0264 (Roller Hearth Furnace #1) (Sub.Cat: 3.1 & 4.2)	PM	Particulate Matter	50	Immediate	Instantaneous	34504	18.7	24 Hours	See point source operating requirements below
	SO_2	Sulphur Dioxide	500					1 Hour	
	NO_X	Nitrogen Oxide	500						

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EU0266 (Roller Hearth Furnace #2) (Sub.Cat: 3.1 & 4.2)	PM	Particulate Matter	50	Immediate	Instantaneous	15956	11.8	24 Hours	See point source operating requirements below
	SO_2	Sulphur Dioxide	500					1 Hour	
	NO_X	Nitrogen Oxide	500						
EU0268 (Midrex gas heater) (Sub.Cat: 4.12)	SO_2 from all other fuels	Sulphur Dioxide	500	Immediate	Instantaneous	463158	14.3	1 Hour	See point source operating requirements below
	NO_X	Nitrogen Oxide	500-gas based						
			1000-all other fuels						
EU0270 Furnace de-dusting: Midrex (Sub.Cat: 4.12)	PM	Particulate Matter	50	Immediate	Instantaneous	36294	17.8	24 Hours	See point source operating requirements below
	SO_2 from all other fuels	Sulphur Dioxide	500					1 Hour	
	NO_X	Nitrogen Oxide	500-gas based						
			1000-all other fuels						
EU0273 (Alloy store de-dusting) (Sub.Cat: 5.1)	PM	Particulate Matter	50	Immediate	Instantaneous	19298	6.8	24 Hours	See point source operating requirements below

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EU0284 (Midrex Product Dedusting Wet Scrubber)	PM	Particulate Matter	50	Immediate	Instantaneous	39960	11.3	24 Hours	See point source operating requirements below
EU0286 (Midrex Metalized Fines – Wet Scrubber)	PM	Particulate Matter	50	Immediate	Instantaneous	29160	8.2	24 Hours	See point source operating requirements below

***Note:** The facility representatives confirmed that measurement of particulate matter (PM) is problematic as the heat burns the filters in this combustion unit referenced EU0268. No PM monitoring is taking place at EU0268.

Reporting Group / Emission Unit – maximum emission rates (under normal working conditions): Conditions

Should 24-hour emission limits for PM and 1-hour emission limits for gasses be exceeded the following actions must be implemented immediately:

7.3.1 Visible dust emissions from:

a. Corex: Procedures to safely stop the operation will be implemented and required repair work will be done.
b. Midrex: Procedures to safely stop the operation will be implemented and required repair work will be done to scrubber and related control equipment.
c. Conarc: Procedures to safely stop the operation will be implemented and required repair work will be done to bag house and related control equipment.
d. All other operations not mentioned above will be stopped and corrective actions will be taken immediately.

7.3.2 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.

7.3.3 Ensure that all extraction equipment is maintained and serviced as per manufacturers specifications in order to ensure that required extraction flow is maintained, as well as all leaks in extraction system are timeously repaired.

7.3.4 Ensure baghouses are maintained with emission tests undertaken to confirm control efficiency remains high and emission standards (where applicable) are met.

7.3.5 Where possible, do not undertake material handling activities during windy conditions. Conditions exceeding 10 m/s, and blowing directly towards the nearest receptors, should be considered as windy.

7.4. Reporting Group / Emission Unit - emission monitoring and reporting requirements

RG/EU Code	Pollutant	Emission Sampling / Monitoring Method	Sampling testing Frequency	Average Monitoring Duration	Parameters to be Measured	Parameters to be Reported	Reporting Frequency
EU0246 (Coal Drier)	PM	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Particulate Matter	Particulate Matter	Quarterly And Annually by external service provider.
	SO_2				Sulphur Dioxide	Sulphur Dioxide	Biannual And Annually by external service provider.
	NO_X				Nitrogen Oxide	Nitrogen Oxide	
EU0247 (Coal transport)	PM	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Particulate Matter	Particulate Matter	Monthly via fallout dust reports
EU0249 (Coal blending and screening)	PM	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Particulate Matter	Particulate Matter	Monthly via fallout dust reports
EU0251 (Corex cast house)	PM	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Particulate Matter	Particulate Matter	Monthly via fallout dust reports

EU0258 (Coal stock house)	PM	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Particulate Matter	Particulate Matter	Monthly via fallout dust reports
EU0260 (Ore stock house)	PM	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Particulate Matter	Particulate Matter	Monthly via fallout dust reports
EU0262 (Conarc)	PM	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Particulate Matter	Particulate Matter	Monthly via fallout dust reports
EU0264 (Roller Hearth Furnace Stack #1)	SO_2	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Sulphur Dioxide	Sulphur Dioxide	Biannual And Annually by external service provider
	NO_X				Nitrogen Oxide	Nitrogen Oxide	
EU0266 (Roller Hearth Furnace Stack #2)	SO_2	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Sulphur Dioxide	Sulphur Dioxide	Biannual And Annually by external service provider
	NO_X				Nitrogen Oxide	Nitrogen Oxide	
EU0268 (Midrex gas heater stack)	SO_2	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Sulphur Dioxide	Sulphur Dioxide	Biannual And Annually by external service provider
	NO_X				Nitrogen Oxide	Nitrogen Oxide	
EU0270 (Furnace Dedusting Stack (Midrex)	PM	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Particulate Matter	Particulate Matter	Biannual And Annually by external service provider

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EU0273 (Alloy Store Dedusting Unit)	PM	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Particulate Matter	Particulate Matter	Biannual And Annually by external service provider
EU0276 (Granulation plant-Slag)	SO_2	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Sulphur Dioxide	Sulphur Dioxide	Biannual And Annually by external service provider
	NO_X				Nitrogen Oxide	Nitrogen Oxide	
EU0284 (Midrex Product Dedusting Wet Scrubber)	PM	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Particulate Matter	Particulate Matter	Quarterly And Annually by external service provider
EU0286 (Midrex Metalized fines)	PM	As per approved method – Annexure A of GN 893.	As per approved method – Annexure A of GN 893.	In accordance with approved method	Particulate Matter	Particulate Matter	Quarterly And Annually by external service provider

Reporting Group / Emission Unit - emission monitoring and reporting requirements conditions:

***Note**: While the plant is mothballed, no stack emission monitoring or reports are required. Stack emission monitoring and reporting must commence within three months once the plant has restarted any section.

7.4.1 Emission measurements methods other than those contained in Annexure A of Government Notice No. 893 may only be used with the written consent of the National Air Quality Officer. The outcome of the decision must be submitted to the licensing authority prior to deviation.

7.4.2 All reports as stipulated under table 7.4 to be submitted to the licensing authority as per the stipulated frequency.

7.4.3 Fallout dust monitoring must be done as per the requirements of the National Dust Control Regulations R827 of 01 November 2013. Reports must be submitted to the licencing authority on a monthly basis.

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7.5. Reporting Group / Emission Unit (Area and/or line source)– management and mitigation measures

RG/EU Code	Area and/or Line Source Description	Description of Specific Measures	Timeframe for Achieving Required Control Efficiency	Method of Monitoring Measures Effectiveness	Contingency Measures
EU0119 EU0123 EU0123 EU0126 EU0129	Rotary tippler Transfer Stations TS1 & TS3 Stacker Reclaimer Transfer Stations (TS2, TS4, TS5, TS7 & TS8)	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
EU0138	Corex Tapping Aisle South - Corex fugitive	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
EU0140	Corex Tapping Aisle North – Corex fugitive	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
EU0142	Conarc Building South – Furnace fugitives	Extraction system from building to a bag house.	Immediate	Daily observations, inspections and dust fall monitoring	As per updated Fugitive EMP
EU0144	Conarc Building North – Furnace fugitives	Extraction system from building to a bag house.	Immediate	Daily observations, inspections and dust fall monitoring	As per updated Fugitive EMP
EU0276	Slag Granulation Plant fugitives	Enclosed operation.	Immediate	Daily observations, inspections and dust fall monitoring	As per updated Fugitive EMP
EU0283	Iron Granulation Plant fugitives	Enclosed operation.	Immediate	Daily observations, inspections and dust fall monitoring	As per updated Fugitive EMP

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EU0145	Corex Slag stockpile	Wetting of area during crushing operations.	Immediate	Daily observations, inspections and dust fall monitoring	As per updated Fugitive EMP
EU0148	Conarc Slag stockpile	Wetting of area during crushing operations.	Immediate	Immediate	Daily observations, inspections and dust fall monitoring
EU0237, EU0239 & EU0244	Main paved Road Haul road to Terminal Truck entrance - Weighbridge	Wetting by water truck and sweeping by road sweeper.	Immediate	Immediate	Daily observations, inspections and dust fall monitoring
EU0151, EU0171, EU0174, EU0228 & EU0230	Iron Ore Stockpiles	Control of moisture content in conjunction with TPT.	Immediate	Immediate	Daily observations, inspections and dust fall monitoring
EU0153	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 fall monitoring	As per updated Fugitive EMP

Reporting Group / Emission Unit (Area and/or line source) – management and mitigation measures - Conditions:

7.5.1 Screening to stop if fugitive dust is generated and not contained.

7.5.2 Ore to be made moist prior to loading ad offloading to prevent fugitive dust.

7.5.3 Trucks to be covered when entering and exiting the plant to prevent windblown dust escaping into the receiving environment.

7.5.4 Roads to be treated in such a manner to prevent fugitive dust generated by vehicular movement.

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7.5.5 Conveyors and transfer points to be managed in such a manner to prevent fugitive dust. If fugitive dust is generated and not contained, operations must stop and corrective action to be taken to prevent fugitive dust.

7.5.6 The FEMP to be updated and submitted to the licencing authority annually. The plan must contain contingency plans.

7.5.7 If there is no water for the water trucks or sprayers to operate efficiently, operations must stop until corrective action is taken to prevent fugitive dust.

7.5.8 If fugitive dust is visible from the various plant buildings, operations must stop, corrective action must be taken before to plant can restart to ensure that no visible fugitive dust will be noted escaping any plant building.

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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 licencing 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 measures 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 attend the West Coast Air Quality Working Group meetings as 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). The report must be submitted to the licensing authority not later than 60 (sixty) days after the end of each reporting period.

(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.

Note table 7.7 of this licence.

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Reporting to the National Atmospheric Emissions Inventory System

The licence holder 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.

Greenhouse Gas Reporting

7.6.19 Reporting in terms of S43 (1)(l) shall be done in accordance with the National Greenhouse Gas Reporting Regulations.

7.7. Investigation

The following investigations are required:

Investigation	Purpose	Completion Date
Provide the licensing authority with an updated plant wide Fugitive Emissions Management Plan (FEMP). Plan to include housekeeping methods.	To establish procedures to effectively mitigate, monitor and manage dust from all point and non-point sources.	Report to be submitted to the licensing authority within three (3) months from the date of this licence and annually thereafter.
Improve and repair/replace the de-dusting system at the Conarc to effectively capture all fugitive emissions.	To prevent emissions escaping into the atmosphere from the Conarc roof and building operations.	Maintenance to be completed prior to the commencing of the Conarc or any of the listed activities for steel making.
Improve and repair/replace the Corex Cast House de-dusting system to effectively capture all fugitive emissions.	To prevent emissions escaping into the atmosphere from the Corex Cast House operations.	Maintenance to be completed prior to the commencing of the Corex cast house or any of the listed activities for steel making.
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. 6. Metal recovery and screening activity	To prevent emissions escaping into the atmosphere from waste and raw material handling area including the associated internal roads, portion of the haul road utilised by Saldanha Steel and screening plant.	Report to be submitted to the licensing authority within three (3) months prior to the commencing of any of the listed activities for steel making. Implementation of mitigation measures to be installed and ready for use prior to the commencement of the listed activities for steel making.
Investigate for implementation alternative methods for pooling of iron that causes iron oxide.	To prevent the plant contribution towards the accumulative effect of iron oxide into the environment.	Report with timeframes of implementation to be submitted to the licensing authority within three (3) months prior to the commencement of the listed activities for steel making.

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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.	Report with timeframes of implementation to be submitted to the licensing authority within three (3) months prior to the commencement of the listed activities for steel making.
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.	Report to be submitted as part of the quarterly and annual reports as per item 7.6 of this licence.

Condition:

Due to the mothballing of the facility since 2021 and the poor condition of the buildings and plant, all projects, maintenance and repairs must be completed prior to the start-up of any section of the facility to ensure that fugitive will not escape into the receiving environment.

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 legislation and requirements of the relevant authorities.

EU Code / Name	Waste / Effluent Type	Hazardous Components Present	Method of Disposal
Steel - making	Conarc dust	Fluoride, Manganese	Solid / Landfilled / Mixed with sludge
	Combustion chamber dust	N/A	
	ESP Sludge	N/A	
Iron - making	Oxide dust	N/A	Mixed with sludge - solid / landfilled
	Sludge		Landfilled or sold off

Note: Waste to be disposed of in accordance with the facility's waste licence.

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.

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