NKANGALA DISTRICT MUNICIPALITY

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My Ref.:
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ATMOSPHERIC EMISSION LICENCE HOLDER: ESKOM HOLDING SOC LIMITED KENDAL POWER STATION

ATMOSPHERIC EMISSION LICENCE NO.: 17/4/AEL/MP312/11/15

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

I, VM Mahlangu, in my capacity as the Acting General Manager: Community Development Services of Nkangala District Municipality (hereinafter referred to as "the Licensing Authority ", in terms of Section 36(1) of the National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004, hereinafter referred to as the "Act"), and as provided for in Section 40 (1) (a) of the Act, hereby grant the authorisation of the above-mentioned Atmospheric Emission Licence subject to Section 43 of the Act to the conditions specified herein.

This Atmospheric Emission Licence is issued to **Eskom Holding SOC Limited Kendal Power Station** in terms of Section 42 of the Act as amended, in respect of 21 Listed Activity **Subcategory 1.1, 2.4 and 5.1.** The Atmospheric Emission Licence is issued on the basis of information provided in the company's application dated **25 May 2025** and information that became available during processing of the application, as well as the site visit conducted on **03 June 2025.**

The Atmospheric Emission Licence is valid for five (05) years, until **10 December 2030**. This Atmospheric Emission Licence is a renewal initiated by the facility according to Section 47(1) of the Act and is issued subject to the conditions and requirements set out below which form part of the Atmospheric Emission Licence, and which are binding on **Eskom Holding SOC Limited Kendal Power Station**, (hereinafter referred to as "the Licence Holder").

Air Quality Officer
Signature: _____ Date: 10.12.2025

1. ATMOSPHERIC EMISSION LICENCE ADMINISTRATION

Name of the Licensing Authority	Nkangala District Municipality
Atmospheric Emission Licence Number	17/4/AEL/MP312/11/15
Previous Atmospheric Emission Licence Issue Date	30 September 2019
Current Atmospheric Emission Licence Issue Date *To incorporate Minister's Exemption Decisions dated 31 March 2025 and Renewal (Eskom Kendal Power Station applied for a NEM:AQA Section 59 Exemption and therefore the application was held in abeyance up until the Minister issued the Exemption Decisions)*	10 December 2025
Atmospheric Emission Licence Type	Atmospheric Emission Licence
Atmospheric Emission Licence Review Date	As advised by Licensing Authority
Atmospheric Emission Licence Renewal Date	(Submit renewal application six months before expiry date) 10 June 2030

2. ATMOSPHERIC EMISSION LICENCE HOLDER DETAILS

Enterprise Name	Eskom Holdings SOC limited
Trading As	Eskom Kendal Power Station
Type of Enterprise	State Owned Company
Enterprise Registration Number (Registration Numbers if Joint Venture)	2002/015527/30
Registered Address	Portion 22 Schoongezicht, No 218 IR, Emalahleni Local Municipality, Mpumalanga, 1035
Postal Address	Private Bag X7272 Witbank 1035
Telephone Number (General)	013 647 9111
Fax Number (General)	013 647 6904
Industry Sector	Power Station (Electricity Generation)
Contact Name (Emission Control Officer)	Tshepiso Temo
Telephone Number	017 779 8641
Cell Phone Number	082 600 7643
Fax Number	013 647 6904

Email Address	temotc@eskom.co.za
After Hours Contact Details	082 600 7643
Land Use Zoning as per Town Planning Scheme	Agricultural/ Heavy industrial

3. SITUATION AND EXTENT OF THE PLANT

3.1. Location and extent of the plant

Physical Address of the Plant	Portion 22 Schoongezicht, No 218 IR, Emalahleni Local Municipality, Mpumalanga, 1035
Description of Site (Erf)	Eskom Kendal Power Station is mostly surrounded by farming and mining activities. Ingwe Colleries Ltd is situated about 3.3 km north-west of the station. The R545 motor way is also situated about 3 km away from the station. Ogies is about 8.8 km north-east from the power station. Railway line and Khayalethu village are about 5 km north of the station
Coordinates of Approximate Centre of Operations	Latitude: 26° 5'18.30"S Longitude: 28°58'5.74"E
Extent (km^2)	39
Elevation Above Mean Sea Level (m)	1631
Province	Mpumalanga Province
Metropolitan/District Municipality	Nkangala District Municipality
Local Municipality	Emalahleni Local Municipality
Designated Priority Area	Highveld Priority Area

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

Eskom Kendal Power Station is mostly surrounded by farming and mining activities. Ingwe Colleries Ltd is situated about 3.3 km north-west of the station. The R545 motor way is also situated about 3 km away from the station. Ogies is about 8.8 km north-east from the power station. Railway line and Khayalethu village are about 5 km north of the station.

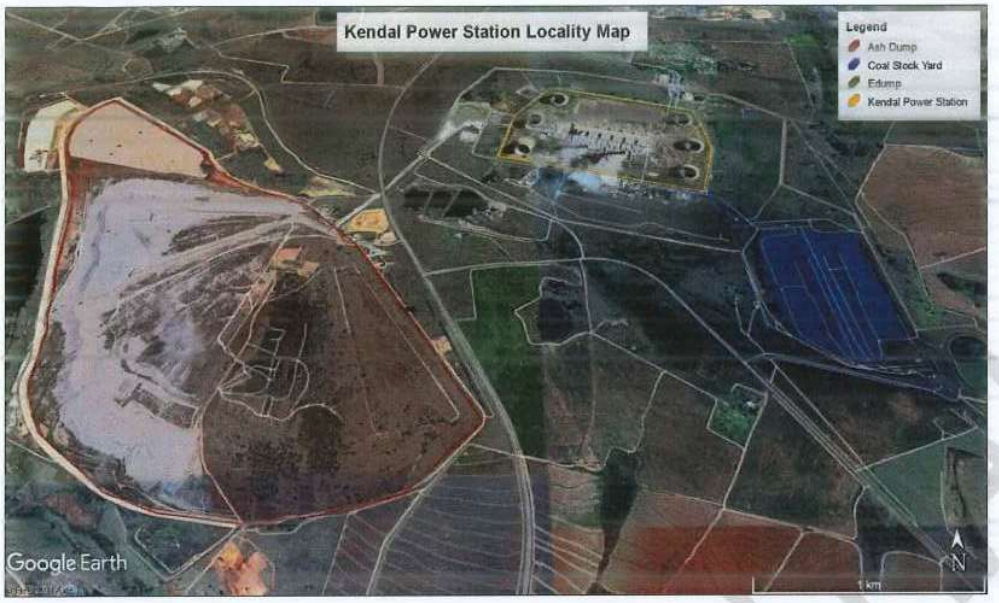

Figure 1: Locality of Eskom Kendal Power Station

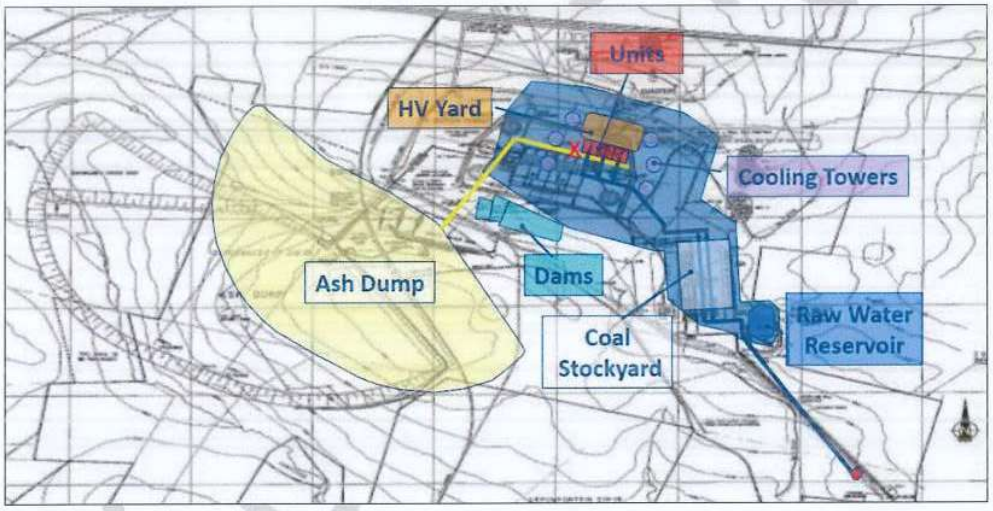

Figure 2: Site layout of Eskom Kendal Power Station

4. GENERAL CONDITIONS

4.1. Process and ownership changes

(a) 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.

(b) 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 follow the 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.

(c) Any changes in processes or production increases, by the licence holder, will require prior approval by the licensing authority.

(d) 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.

(e) 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 thirty (30) working days after the change of ownership.

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

4.2. General duty of care

(a) The Licence Holder must, when undertaking the listed activity, adhere to the duty of care obligations as set out in section 28 of the NEMA.

(b) 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 as amended.

(c) Failure to comply with the above condition is a breach of the duty of care, and the license holder will be subject to the sanctions set out in section 28 of the NEMA as amended.

(d) The Licence Holder must establish an Environmental Monitoring Committee with facilities (including mines and quarries) within and around the operational footprint of Eskom Kendal Power Station, and must on a bi-annual basis hold meetings to discuss air quality issues and provide progress reports to the Licensing Authority.

4.3. Sampling and/or analysis requirements

(a) 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.

(b) The licence holder is responsible for quality assurance of methods and performance. Where the holder of the licence uses internal or external laboratories for sampling or analysis, accredited laboratories and personnel shall be used. The certified copy of accreditation of the internal or external laboratory must be submitted to the licensing authority annually including its external audits certification.

(c) The licence holder must provide the licensing authority on request with raw data obtained during sampling and /or analysis including methodology used to reach to the final results submitted to the Licensing Authority.

4.4. General requirements for licence holder

(a) 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.

(b) 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.

(c) A copy of the license must be kept at the premises where the listed activity is undertaken. The license must be made available to the Environmental Management Inspector representing the licensing authority who requests to see it.

(d) The licence holder must inform, in writing, the licensing authority of any change to its details including the name of the contact person, postal address and/or telephonic details within fourteen (14) working days after such change has been effected.

Special Conditions

(e) The licence holder must attend and participate bi-annually in the Highveld Priority Area Implementation Task Team, and bi-annually in the Multi-Stakeholder Reference Group Forum Meetings for the implementation of the Highveld Priority Air Quality Management Plan.

(f) The licence holder must annually report atmospheric emissions on the National Atmospheric Emission Inventory System (NAEIS) for the preceding year in terms of GNR 283 in Government Gazette 38633 of 02 April 2015 and GN4493 in Government Gazette 50284 of 08 March 2024 to NAEISAdmin@dffe.gov.za and the licensing authority.

(g) The Licence Holder must annually submit a progress report on the implementation of its Emission Reduction and Management Plan (ER&MP) for the preceding calendar year in terms of GNR 5153 in Government Gazette 51120 of 26 August 2024 to Hpaadmin@dffe.gov.za and the Licensing Authority.

4.5. Statutory obligations

The licence holder must comply with the obligations as set out in Chapter 5 of NEMAQA (Act no. 39 of 2004) as amended.

5. NATURE OF PROCESS

5.1. Process Description

Eskom Kendal Power Station was constructed from 1982 to 1993 and it is the world's largest indirect dry-cooled power station. It has six (06) 686 MW generation units (with 729 MW being the maximum).

RAW MATERIAL HANDLING

Coal is supplied, through a conveyor, by nearby Colliery as well as imports which are trucked in the facility. The coal sampling plant plays a vital role in the chain-of-custody of coal received regarding the determination of coal specification required by the power station. The coal is collected and transferred to the surge bin of the coal sampling plant from which it is sampled and analysed. The coal analysis results obtained by the power station are compared with those submitted by the mines. The coal specification for the power station is as follows:

- Calorifc value (CV) = 19.79 MJ/kg
- Abrasiveness = 300 mg Fe
- Volatile content = 20.1%
- Ash content = 34.42 to 35.88%
- Inherent moisture = 3.1%

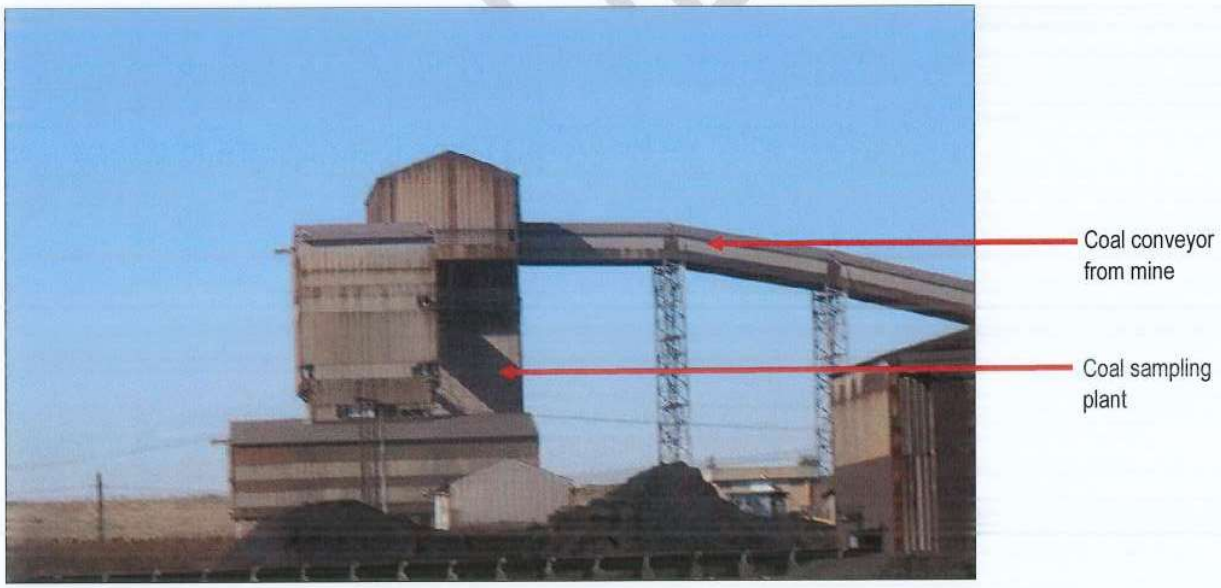

Figure 3: Coal sampling plant with coal conveyor

Power station receives a delivery of up to 50 000 tons per day and the strategic stockpile capacity is ± three (03) million tons. The coal stockyard has two (02) stackers each with a handling capacity of 3 800 tons per hour. The coal stockpile is categorised as strategic stockpile, which is compacted and preserved, and live and seasonal stockpile for day-to-day use.

Figure 4: Coal stacker

COAL MILLS

Coal from the mine is fed with conveyors to coal mills where it is ground to fine coal particles, which is commonly known as pulverised fuel (PF). Each boiler unit has five (05) mills and a unit needs three (03) mills, which need to be closed to each other, for power generation. The grinding within the mill affects production. Since the mills have liners, coal abrasiveness affects the functionality of the mills, i.e. the more abrasive the coal, the more the liners get worn which then adversely impacts on the functionality of the mills. If a boiler unit runs on two (02) mills, fuel oil is injected to maintain flame stability. Fuel oil produces moisture which adversely impacts on the ESPs.

COMBUSTION

The PF is transported with Primary Air flow to the boiler burners where it is combusted to a gas at about 1200 Degrees Celsius. In this combustion processes, by-products are produced. The burning of coal produces heat which is used to produce steam. Superheated and reheated steam is then used to drive four steam turbines which then drive a generator which generates electricity.

The gas and ash particles from the coal combustion are cooled down as they pass through the boiler, and final cooling down and heat extraction for re-use happens at four air heaters. Combustion and mill air is heated up using the hot combustion gas. Final gas temperature at the Electrostatic Precipitators (ESPs) ranges between 110 Degrees Celsius and 150 Degrees Celsius, depending on the boiler load and ambient air temperature.

GENERATION

Heat released by burning coal is absorbed by boiler feed water on the inside of the boiler tubing, which acts as the boiler walls. The boiler feed-water is converted to steam of temperature of 325 °C and a pressure of 18.3 MPa in a steam drum. The steam passes through the high-pressure and low-pressure turbine blades, which causes the turbine to rotate at about 3000 rpm. Exhausted steam is condensed into boiler feed water and pumped back to economizer through high pressure heaters and eventually back into steam drum. Coupled to the turbine shaft is the rotor of the generator. Electricity is produced by rotation of the magnetic field in the rotor.

COOLING

After energy from the steam has been exhausted through the turbines, the steam is condensed in a condenser. Cooling water from the closed-loop Main Cooling Water (MCW) system is pumped to the condenser. The heat extracted from the steam circuit is transferred to the cooling water, which is then routed to the cooling tower structure where the heat is rejected through the radiator sectors. The cooled water is subsequently re-circulated back to the condensers. system, comprising of the Main Cooling Water Pumps (3 pumps each on U1-3, 2 pumps each on U4-6), cooling water ducting, the cooling tower structure - comprising of 11 cooling radiator sectors, two storage tanks, a head tank, two transfer pumps.

ELECTROSTATIC PRECIPITATORS (ESPs)

Electrostatic Precipitators (ESPs) are abatement equipment for the boiler units, i.e. they control (reduce) Particulate Matter (PM) emissions. Fly ash is removed from two (02) casing chambers each with seven (07) electrostatic field through the use of the Advanced precipitator Plant Information Management System (PIMS). Sulphur trioxide (SO_3) injection occurs upstream of the precipitators and as and enhancement of ESPs fields good performance. The precipitators have a design control efficiency of 99.8%, and operational control efficiency of 93%.

Is (expressed as mAps), Vs (expressed as kV) and Spark rate (expressed as spark/minute) are parameters used to assess the performance of ESPs. A critical factor that adversely affects the field performance of ESPs is the ash backlog where dust hoppers are blocked. The hoppers are affected by downstream activities, i.e. ash conveyors and stackers at the ash dump. 00ETK11 and 000ETK24 are important conveyors for ash removal rate, i.e. removal and transfer of ash from hopper to the ash dump. The blockage of ash when ESP hopper knife gates are closed affects the functioning of ESPs, i.e. too much excessive dust "suffocates" ESPs causing the field to trip. This negatively affects the reduction of PM emissions. If any of the downstream unit processes are not available, the Dust Handling Plant (DHP) becomes negatively affected, i.e. ash removal rate is reduced therefore causing blockages of hoppers. High PM emissions result from a DHP that is not functioning effectively.

SULPHUR TRIOXIDE (SO_3) INJECTION PLANT

The Sulphur Trioxide (SO_3) injection plant is installed at all units. The plant enhances the performance of the ESPs by modifying the electrical properties of the dust particles in the flue gas thus reducing the amount of particulate matter emitted in the atmosphere. The SO_3 injection assist to modify the electrical properties of the dust particles with high resistivity when burning coal with a Sulphur content of 1% or less. In this case Sulphur content is far lower for optimum performance of the ESP fields, the injection of the SO_3 improves the dust particle resistivity thus increasing electrostatic precipitator efficiency.

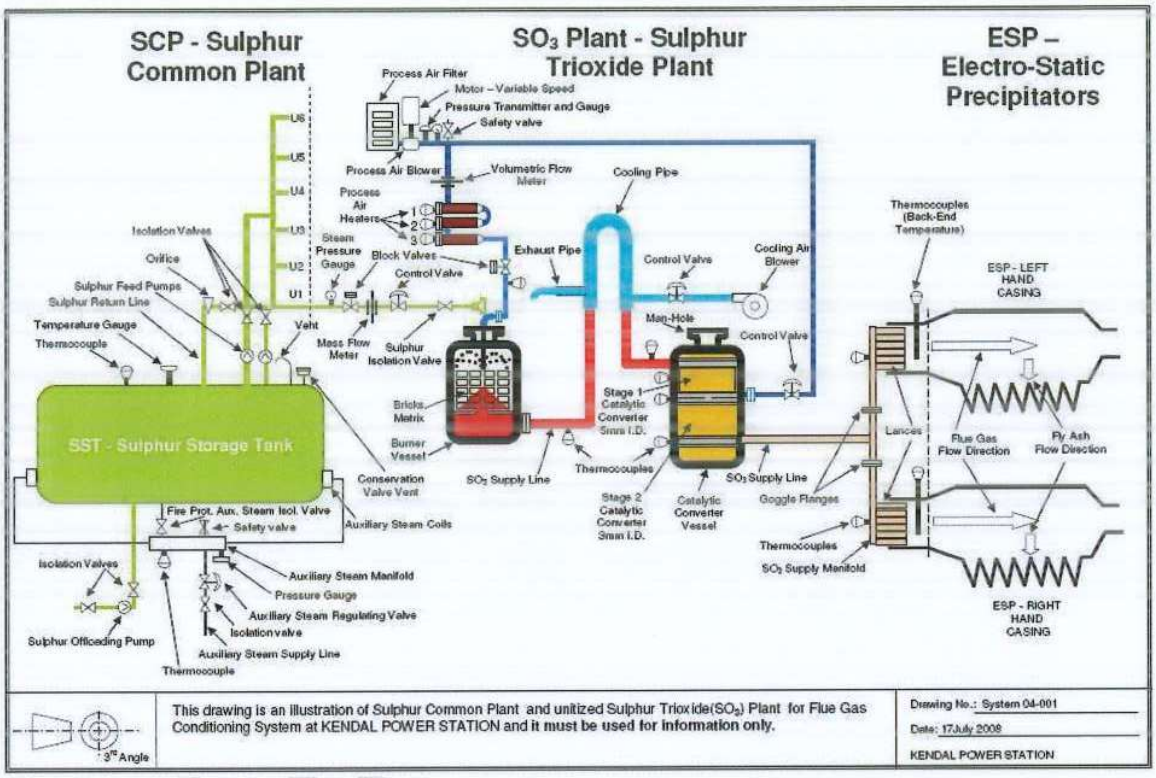

Figure 5: Diagram of SO_3 injection plant

HIGH FREQUENCY TRANSFORMERS (HFTS)

High Frequency Power Supply Transformer-Rectifiers (HFPS/TR) is the latest technology used to assist in the flue gas cleaning optimization by stepping up 380V to 96 KV AC, then rectifying it to 96KV DC operational voltage. The low frequency (Hz) is increased to high (kHz) frequency by an Integrated Gate Bipolar Transistor (IGBT) full bridge circuit which convert the DC bus into high frequency AC waveform and as such the dust collection from the flue gas is improved.

GAS TURBINES

Kendal Power Station is equipped with a Black Start Facility (KBSF), which enables the station to restart and support grid restoration in the event of a national blackout. The facility consists of two General Electric MS5001 heavy-duty Gas Turbines

(GT1 and GT2), each rated at 50% of the required black start capability. At Kendal's elevation of approximately 1160 m, each turbine produces ~18 MW. As a minimum of 30 MW is required to start one Kendal unit, both gas turbines are required to operate in parallel to achieve the necessary starting power.

ASH HANDLING

Ash particles are removed from flue gas inside ESP casings, typically with 93% operational efficiency, and the gas is emitted to atmosphere through the gas chimneys smoke stacks, i.e. two flue stacks which are 275m high with three separate flue gas chimneys each. Fly ash is collected through Electrostatic Precipitators into the hoppers and is transported to fly ash bunkers through a series of chain conveyors. The ash gets temporarily stored inside fly ash bunkers then conditioned and transported by conveyors system (overland conveyors) to the ash dump. At the ash dump, the ash is handled by moveable Stacker and Spreader machines. The ash dump has a capacity of 50 years ash production at six (06) million tons/year. The ash dump is continuously rehabilitated using 1m topsoil covering and vegetation.

5.2. Facility Wide Listed Activities with Regulatory Applicability

Category	Subcategory	Description of the Listed Activity
Category 1: Combustion Installations	Subcategory 1.1: Solid Fuel Combustion Installation	Solid fuels combustion installations used primarily for steam raising or electricity generation.
Category 2: Petroleum Industry, the production of gaseous and liquid fuels as well as petrochemicals from crude oil, coal, gas or biomass	Subcategory 2.4: storage and Handling of Petroleum Products	Petroleum products storage tanks and product transfer facilities.
Category 5: Mineral Processing, Storage and Handling	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.

5.3. Unit Process or Processes

Unit Process	Process function	Batch or Continuous Process
Mine Coal Conveyor Belt	Transfer of coal from the mine to the coal sampling plant.	Continuous
Coal Sampling Plant	Obtain representative samples of coal	Continuous

Unit Process	Process function	Batch or Continuous Process
Unpaved Roads (around coal stockyard)	Movement of vehicles within and around the coal stockyard.	Continuous
Coal Stacker	Stacking of coal stockpiles at the coal stockyard.	Continuous
Coal Stockpile	Storage and handling of coal (strategic and live stockpiles).	Continuous
Fuel Oil Storage Tanks	Storage and handling of fuel oil. • The North and South Fuel Oil Storage Tanks are common system that feed one pipeline that supply all the boiler units.	Continuous
Diesel Tanks (Gas turbines)	Storage and handling of diesel.	Continuous
Conveyor Belts	Transportation of coal to boiler units.	Continuous
Coal Mills	Grinding of coal to fine coal particles (pulverised fuel).	Continuous
Boiler Units (1 to 6)	Power generation.	Continuous
Boiler Units Control Room	Manages the operation of boilers	Continuous
Condenser	Condensation of steam from turbines.	Continuous
Electrostatic Precipitators (ESPs)	Abatement (air pollution control) equipment for Particulate Matter (PM) emission.	Continuous
Sulphur Trioxide (SO_3) Injection Plant	Abatement technology that injects SO_3 gas into the flue gas to increase the PM's ability to be electrically charged and thus increase the ESP's PM collection efficiency.	Continuous
High Frequency Transformers	Provides the current and voltage to ESP fields to electrically energize with electrostatic power	Continuous
Dust Handling Plant	Handling and containment of ash prior transfer to fly ash silos and ash dump.	Continuous
Ash Conveyor Belts	Conveyance of ash.	Continuous
Fly Ash Silo	Storage and handling of fly ash.	Continuous
Unpaved Roads (around E-Dump)	Movement of vehicles within and around the E-Dump.	Continuous
E-Dump	Temporary storage of ash (ash disposal).	Continuous
Unpaved Roads (around dams)	Movement of vehicles within and around the dams.	Continuous
Dams	Storage of stations excess water	Continuous

Unit Process	Process function	Batch or Continuous Process
Unpaved Roads (around ash dump)	Movement of vehicles within and around the ash dump	Continuous
Ash Dump Stacker	Stacking out of ash coming from the station via the conveyor to the ash dump facility.	Continuous
Ash Dump Spreader	Stacking out of ash coming from the station via the conveyor to the ash dump facility.	Continuous
Continuous Ash Dump	Storage of ash (ash disposal).	Continuous
Ash Dump	Storage of ash (ash disposal).	Continuous

5.4. Hours of operations

Unit Process	Operating Hours	Days of Operation per Year
Mine Coal Conveyor Belt	24	365
Coal Sampling Plant	24	365
Unpaved Roads (around coal stockyard)	24	365
Coal Stacker	24	365
Coal Stockpile	24	365
Fuel Oil Storage Tanks	24	365
Diesel Tanks	24	365
Conveyor Belts	24	365
Coal Mills	24	365
Boiler Units (1 to 6)	24	365
Boiler Units Control Room	24	365
Condenser	24	365
Electrostatic Precipitators (ESPs)	24	365
Sulphur Trioxide (SO_3) Injection Plant	24	365
High Frequency Transformers	24	365
Dust Handling Plant	24	365
Ash Conveyor Belts	24	365
Fly Ash Silo	24	365
Unpaved Roads (around E-Dump)	24	365
E-Dump	24	365
Unpaved Roads (around dams)	24	365

Unit Process	Operating Hours	Days of Operation per Year
Dams	24	365
Unpaved Roads (around ash dump)	24	365
Ash Dump Stacker	24	365
Ash Dump Spreader	24	365
Continuous Ash Dump	24	365
Ash Dump	24	365

5.5. Graphical Process Information

The following diagrams depicting the graphical operation for the entire operation at Eskom Kendal Power Station:

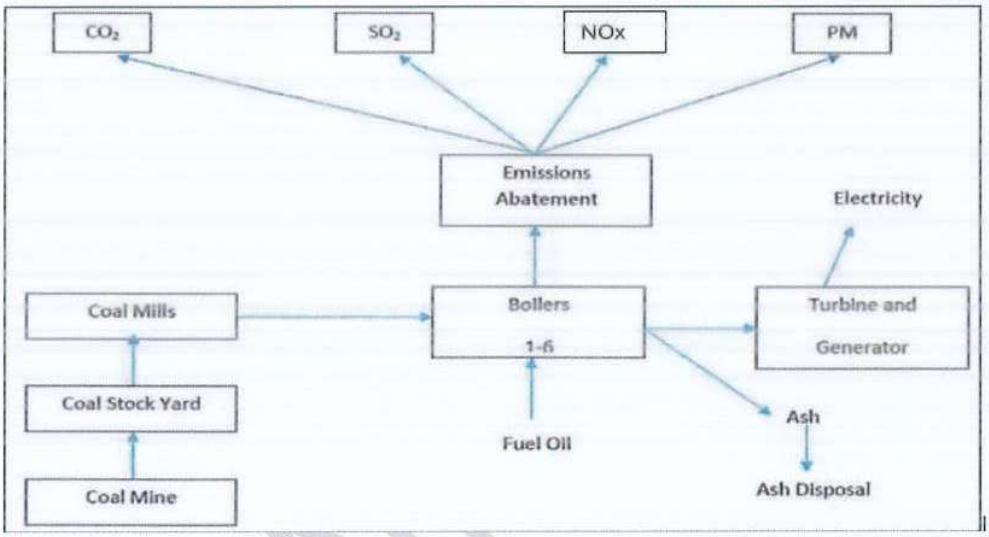

Figure 6: Block diagram depicting process flow at Eskom Kendal Power Station

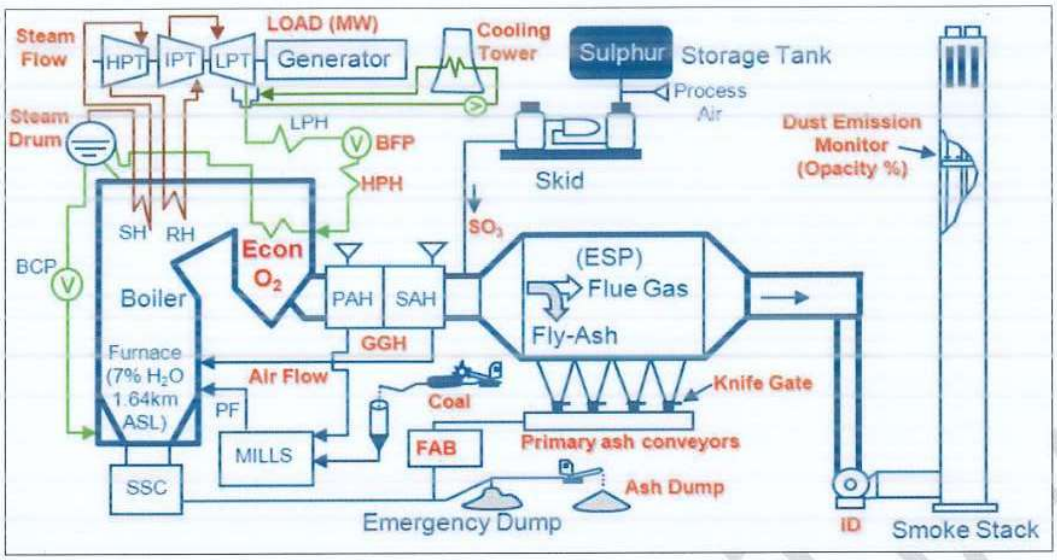

Figure 7: Emission Management Process Flow.

6. RAW MATERIALS AND PRODUCTS

6.1. Raw Materials used.

Raw Material Type	Maximum Permitted Consumption Rate (Quantity)	Units (Quantity/Period)
Coal	2 260 000	Tons/Month
Fuel Oil	5 000	Tons/Month

6.2. Production Rates

Product Name	Maximum Permitted Production Rate (Quantity)	Units (Quantity/Period)
Electricity	3 062.304	Gigawatt Hours/Month (GWh/Month)

By Product Rates

Product Name	Maximum Permitted Production (Quantity)	Units (Quantity/Period)
Ash	770 000	Tons/Month

6.3. Materials used in energy sources.

Materials for Energy Source	Maximum Permitted Consumption Rate (Quantity)	Sulphur Content (%)	Ash Content (%)
Coal	2 260 000 Tons/Month	< 3%	< 40%
Fuel Oil	10 000Tons/Month	< 3.5%	< 0.1%

6.4 Emission Units

6.4.1. Emission Unit - Stack Parameters (Point Source)

EU Code	Stack 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)
EU0001	Boiler Unit 1	-26.090000	28.967722	275	177	7.8	110 - 150	1320.5	32	24	Continuous
EU0002	Boiler Unit 2	-26.090000	28.967722	275	177	7.8	110 - 150	1320.5	32	24	Continuous
EU0003	Boiler Unit 3	-26.090000	28.967722	275	177	7.8	110 - 150	1320.5	32	24	Continuous
EU0004	Boiler Unit 4	-26.090556	28.970167	275	177	7.8	110 - 150	1320.5	32	24	Continuous
EU0005	Boiler Unit 5	-26.090556	28.970167	275	177	7.8	110 - 150	1320.5	32	24	Continuous
EU0006	Boiler Unit 6	-26.090556	28.970167	275	177	7.8	110 - 150	1320.5	32	24	Continuous

6.5.2. Emission Unit - Area/Line Source

EU Code	Source Name	Source Description	Latitude	Longitude	Height of release Above Ground (m)	Length of Area (m)	Width of Area (m)	Emission Hours	Type of Emissions
EU0007	Mine Coal Conveyor Belt	**Emission Unit Type:** Transfer of coal from the mine to the coal sampling plant. **Description:** Fugitive dust emissions resulting from the transfer of coal.	-26.1061517	28.984675	CS1A&B conveyor belt Conveyor rise: 7.2m S1A&B Conveyor rise: 13.05m	CS1A&B conveyor belt L: 106 m S1A&B conveyor belt L: 2035.3 m	CS1A&B conveyor belt W:210m S1A&B conveyor belt W:150m	24	Continuous

EU Code	Source Name	Source Description	Latitude	Longitude	Height of release Above Ground (m)	Length of Area (m)	Width of Area (m)	Emission Hours	Type of Emissions
					S1A&B Conveyor rise: 31.44m				
EU0008	Coal Sampling Plant	**Emission Unit Type:** **Description**: Fugitive dust emissions resulting from the operations of the coal sampling plant.	- 26° 6'22.25"S	28°59'4.44"E	24m	9.75m	5.75m	24	Continuous
EU0009	Unpaved Roads (around coal stockyard)	**Emission Unit Type:** Movement of vehicles within and around the coal stockyard. **Description**: Fugitive dust emissions resulting from the movement of vehicles within and around the coal stockyard.	-26.097225	28.9787944444	N/A	± 2 900	8	24	Continuous
EU0010	Coal Stockpile	**Emission Unit Type:** Storage and handling of coal (strategic and live stockpiles).	-26.1053083	28.9782	15	800	240	24	Continuous

EU Code	Source Name	Source Description	Latitude	Longitude	Height of release Above Ground (m)	Length of Area (m)	Width of Area (m)	Emission Hours	Type of Emissions
		Description: Fugitive dust emissions Fugitive dust emissions resulting from storage and handling of coal.							
EU0011	Fuel Oil Storage Tanks	**Emission Unit Type:** Storage and handling of fuel oil. **Description:** Volatile Organic Compounds (VOCs) emissions resulting for the storage and handling of fuel oil.	-26.0906194	28.9784138889	14	10 (diameter)	10 (diameter)	24	Continuous
EU0012	Diesel Tanks	**Emission Unit Type:** Storage and handling of diesel. **Description:** Volatile Organic Compounds (VOCs) emissions resulting for the storage and handling of diesel.	-26.0858333	28.9669444444	5	7 (diameter)	7 (diameter)	24	Continuous

EU Code	Source Name	Source Description	Latitude	Longitude	Height of release Above Ground (m)	Length of Area (m)	Width of Area (m)	Emission Hours	Type of Emissions
EU0013	Conveyor Belts	**Emission Unit Type:** Transportation of coal to boiler units. **Description:** Fugitive emissions resulting from the transportation of coal.	26° 5'49.08"S	28°58'39.23"E	43 m	ECB conveyors ECB40AF001: 149m ECB30AF001: 34m ECB41AF001: 84m ECB42AF001: 22m ECB43AF001: 22m ECB31AF001: 61m ECB32AF001: 46m	All ECB conveyors are 120m	24	Continuous
EU0014	Coal Mills	**Emission Unit Type:** Grinding of coal to fine coal particles (pulverised fuel). **Description:** Fugitive emissions resulting from the grinding of coal.	-26° 5'18.30"	28°58'5.74"	40m	8m	4m	24	Continuous

EU Code	Source Name	Source Description	Latitude	Longitude	Height of release Above Ground (m)	Length of Area (m)	Width of Area (m)	Emission Hours	Type of Emissions
EU0015	Dust Handling Plant	**Emission Unit Type:** Handling of fly and coarse ash from boiler units resulting from burning of coal. **Description:** Fugitive dust emissions from the handling of fly ash and coarse ash	-26.089225	28.96754	11m	ETK11&12 conveyors L:1720 m L (max) Extendable: 2600m	165m	24	Continuous
EU0016	Ash Conveyor Belts	**Emission Unit Type:** Conveyance of ash. **Description**: Fugitive dust emissions resulting from the conveyance of ash.	26° 5'29.60"S	28°57'20.80"E	ETK11&21 Vertical lift: 10.9 m ETK13&23 Vertical lift: 5 m ETK14&24 Vertical lift: 29.7 m	Transfer conveyors ETK13&23 conveyor belt L:359m ETK14&24 L:1835m	150m	24	Continuous
EU0017	Fly Ash Silos	**Emission Unit Type:** Fly ash storage.	26.52388	28.58115	Bunkers: 16.1 m Silos	Bunkers: 29m Silos:	Bunkers :12m Silos:	24	Continuous

EU Code	Source Name	Source Description	Latitude	Longitude	Height of release Above Ground (m)	Length of Area (m)	Width of Area (m)	Emission Hours	Type of Emissions
		Description: Fugitive dust emissions resulting from the storage and handling of fly ash.							
EU0018	Unpaved Roads (around Emergency Ash Dump)	**Emission Unit Type:** Movement of vehicles within and around the E-Dump. **Description**: Fugitive dust emissions resulting from the movement of vehicles within and around the Emergency Ash Dump.	-26.0864722	28.9582972222	N/A	± 667	8	24	Continuous
EU0019	Emergency Ash Dump	**Emission Unit Type:** Temporary storage of ash (ash disposal). **Description**: Fugitive dust emissions resulting from the temporary storage of ash.	-26.086780	28.958900	6	100	60	24	Continuous
EU0020	Unpaved Roads	**Emission Unit Type:** Movement of vehicles within and around the dams.	-26.0997472	28.9614305556	N/A	± 0.60	8	24	Continuous

EU Code	Source Name	Source Description	Latitude	Longitude	Height of release Above Ground (m)	Length of Area (m)	Width of Area (m)	Emission Hours	Type of Emissions
	(around dams)	**Description**: Fugitive dust emissions resulting from the movement of vehicles within and around the dams.							
EU0021	Unpaved Roads (around Ash Dump)	**Emission Unit Type:** Movement of vehicles within and around the ash dump **Description**: Fugitive dust emissions resulting from the movement of vehicles within and around the Ash Dump.	-26.0981667	28.9554194444	N/A	± 7 800	8	24	Continuous
EU0022	Ash Dump	**Emission Unit Type:** Storage of ash (ash disposal). **Description**: Fugitive dust emissions resulting from the storage of ash.	-26.099621	28.943952	65	2 500	2 000	24	Continuous

7. CONTROL DEVICES, EMISSION UNITS, AND REPORTING GROUPS

7.1. Control Devices

Emission Unit				Control Device							
Associated Source Code	Appliance / Process Equipment Number	Appliance Serial Number	Appliance Type / Description	Control devices Name and Model	Control Devices Manufacture Date	Commission Date	Date of Significant Modification / Upgrade	Device Type	Design Capacity	Minimum Control Efficiency (%)	Minimum Utilisation (%)
EU0001	U1	10HQF	Coal Fired Boiler Unit 1	ESP WALTER&CIE	1982	1982	N/A	Electrostatic Precipitator (ESP)	1250 m^3/s	93	100
				SO3 CHEMITHON	1997	1997	N/A	SO_3 Plant	75 kg/hr	93	80
EU0002	U2	20HQF	Coal Fired Boiler Unit 2	ESP WALTER&CIE	1982	1982	N/A	Electrostatic Precipitator (ESP)	1250 m^3/s	93	100
				SO3 CHEMITHON	1997	1997	N/A	SO_3 Plant	75 kg/hr	93	80
EU0003	U3	30HQF	Coal Fired Boiler Unit 3	ESP WALTER&CIE	1982	1982	N/A	Electrostatic Precipitator (ESP)	1250 m^3/s	93	100
				SO3 CHEMITHON	1997	1997	N/A	SO_3 Plant	75 kg/hr	93	80
EU0004	U4	40HQF	Coal Fired Boiler Unit 4	ESP WALTER&CIE	1982	1982	N/A	Electrostatic Precipitator (ESP)	1250 m^3/s	93	100
				SO3 CHEMITHON	1997	1997	N/A	SO_3 Plant	75 kg/hr	93	80

Emission Unit				Control Device							
Associated Source Code	Appliance / Process Equipment Number	Appliance Serial Number	Appliance Type / Description	Control devices Name and Model	Control Devices Manufacture Date	Commission Date	Date of Significant Modification / Upgrade	Device Type	Design Capacity	Minimum Control Efficiency (%)	Minimum Utilisation (%)
EU0005	U5	50HQF	Coal Fired Boiler Unit 5	ESP WALTER&CIE	1982	1982	N/A	Electrostatic Precipitator (ESP)	1250 m^3/s	93	100
				SO3 CHEMITHON	1997	1997	N/A	SO_3 Plant	75 kg/hr	93	80
EU0006	U6	60HQF	Coal Fired Boiler Unit 6	ESP WALTER&CIE	1982	1982	N/A	Electrostatic Precipitator (ESP)	1250 m^3/s	93	100
				SO3 CHEMITHON	1997	1997	N/A	SO_3 Plant	75 kg/hr	93	80

7.2. Reporting / Emission Unit – Maximum Emission Rates (Under Normal Working Conditions)

RG/EU Code	Listed Activity	Pollutant Name	Maximum Release Rate (mg/Nm^3)	Date to be Achieved By	Average Period (Instantaneous, Hourly, Daily, Monthly, Annually)	Duration of Emissions (Hours)
EU0001	SA0101	Particulate Matter (PM)	100	Immediate	Daily	24
			50	01 April 2026	Daily	24
		Sulphur Dioxide (SO_2)	3000	Immediate – 01 April 2030	Daily	24
			1000	01 April 2036 (Should semi-dry FGD be installed)	Daily	24
		Oxides of Nitrogen (NO_x expressed as NO_2)	1100	Immediate	Daily	24
			750	01 April 2025	Daily	24

RG/EU Code	Listed Activity	Pollutant Name	Maximum Release Rate (mg/Nm³)	Date to be Achieved By	Average Period (Instantaneous, Hourly, Daily, Monthly, Annually)	Duration of Emissions (Hours)
EU0002	SA0101	Particulate Matter (PM)	100	Immediate	Daily	24
			50	01 April 2026	Daily	24
		Sulphur Dioxide (SO_2)	3000	Immediate – 01 April 2030	Daily	24
			1000	01 April 2036 (Should semi-dry FGD be installed)	Daily	24
		Oxides of Nitrogen (NO_x expressed as NO_2)	1100	Immediate	Daily	24
			750	01 April 2025	Daily	24
EU0003	SA0101	Particulate Matter (PM)	100	Immediate	Daily	24
			50	01 October 2025	Daily	24
		Sulphur Dioxide (SO_2)	3000	Immediate – 01 April 2030	Daily	24
			1000	01 April 2036 (Should semi-dry FGD be installed)	Daily	24
		Oxides of Nitrogen (NO_x expressed as NO_2)	1100	Immediate	Daily	24
		Oxides of Nitrogen (NO_x expressed as NO_2)	750	01 April 2025	Daily	24
EU0004	SA0101	Particulate Matter (PM)	100	Immediate	Daily	24
			50	01 October 2025	Daily	24
		Sulphur Dioxide (SO_2)	3000	Immediate – 01 April 2030	Daily	24
			1000	01 April 2036 (Should semi-dry FGD be installed)	Daily	24
		Oxides of Nitrogen (NO_x expressed as NO_2)	1100	Immediate	Daily	24
			750	01 April 2025	Daily	24

RG/EU Code	Listed Activity	Pollutant Name	Maximum Release Rate (mg/Nm³)	Date to be Achieved By	Average Period (Instantaneous, Hourly, Daily, Monthly, Annually)	Duration of Emissions (Hours)
EU0005	SA0101	Particulate Matter (PM)	100	Immediate	Daily	24
			50	01 April 2026	Daily	24
		Sulphur Dioxide (SO_2)	3000	Immediate – 01 April 2030	Daily	24
			1000	01 April 2036 (Should semi-dry FGD be installed)	Daily	24
		Oxides of Nitrogen (NO_x expressed as NO_2)	1100	Immediate	Daily	24
			750	01 April 2025	Daily	24
EU0006	SA0101	Particulate Matter (PM)	100	Immediate	Daily	24
			50	01 October 2025	Daily	24
		Sulphur Dioxide (SO_2)	3000	Immediate – 01 April 2030	Daily	24
			1000	01 April 2036 (Should semi-dry FGD be installed)	Daily	24
		Oxides of Nitrogen (NO_x expressed as NO_2)	1100	Immediate	Daily	24
EU0006	SA0101	Oxides of Nitrogen (NO_x expressed as NO_2)	750	01 April 2025	Daily	24

Point source – Operating Requirements

7.2.1. Eskom Kendal Power Station must report all non – compliance with the conditions stipulated in this Atmospheric Emission License within 24 hours.

7.2.2. A copy of this AEL shall be retained at a place convenient to be produced in case the authorities would like to view it.

7.2.3. The License holder shall notify the Licensing Authority in writing pertaining to any upgrades or building alterations associated with the listed activity, prior taking the action.

7.2.4. The License holder must comply with the National Greenhouse Gas Emission Reporting Regulations No. 40762 Government Gazette 03 April 2017.

7.2.5. All units must be fitted with continuous emission monitoring equipment for PM; SO_2 and NO_x.

7.2.6. Any abnormalities experienced shall be part on the normal monthly reporting and be forwarded to the Licensing Authority.

7.2.7. In the event where there is an equipment failure, malfunction or break down, the license holder shall reduce the load to the extent that non-compliance to the license conditions are avoided and if it still continues, the operation shall be halted.

7.2.8. The number of hours, over a period of 24 hours, for which emissions exceeded the limit shall be reported immediately to the Licensing Authority.

7.2.9. Emissions must be measured and reported to Licensing Authority **as per condition 7.4** of the Atmospheric Emission License.

7.2.10. The license holder must always prevent any deviation from the normal conditions of operations that may result in emission exceedances from the specified limit values. In case there is potential of such, the loading shall be scaled down or operations shall be halted completely if there is a likelihood that continued operation may result in harm to human health and well-being or otherwise be detrimental to the environment.

7.2.11. The licence holder shall be liable to prevent and mitigate against the risk of harm to human health and the environment and shall put in place measures necessary to prevent and/ or mitigate against such risks.

7.2.12. Where continuous emission monitoring is required for a listed activity-

(a) The averaging period for the purpose of compliance monitoring shall be expressed on a daily average basis or as prescribed in the Atmospheric Emission License.

(b) The emission monitoring system must be maintained to yield a minimum of 80% valid hourly average values during the reporting period.

(c) The emission monitoring system must be maintained and calibrated as per the original equipment manufacture's specifications.

(d) Continuous emission monitoring systems must be calibrated by a SANAS accredited laboratory at least every two (2) years.

7.2.13. The coal specifications shall not be lowered in regard to Service Level Agreements with coal supply contractors and has to undergo pre-qualification, i.e. has to be tested by an accredited laboratory in order to ascertain that it complies with the sulphur and ash content specified in condition 6.3, prior it being used by the facility.

7.2.14. The Licence Holder must adhere to the facility's Integrated Particulate Emissions Reduction Strategy.

7.2.15. The Licence Holder must adhere to the facility's Mill Plant Recovery Plan.

7.2.16. The Licence Holder must ensure that the facility's Dust Management Plan and Fugitive Emissions Monitoring Management Plan is adhered to at all times.

7.2.17. The Licence Holder must ensure full functioning of ash conveyors OOETK11 and OOETK24 as well as the downstream activities stacker, shiftable conveyor and spreader at the ash dump.

7.2.18. The Licence Holder must ensure that the rehabilitation of the ash dump and E dump is in effect to manage and minimise dust. The licence holder must submit an annual progress report on the implementation of the Ash Dump and E Dump Rehabilitation Plan to the National Air Quality Officer and Licensing Authority.

7.2.19. **Special Minister's Exemption Conditions relating to the Section 59 Exemption in terms National Environmental Management: Air Quality Act 39 of 2004 of 31 March 2025**

Health interventions

(a) The Licence Holder must conduct detailed health impact assessments to quantify excess mortality/morbidity associated with the power station's emission based on existing health response models. Based on this data, the power station has to demonstrate how it is mitigating these effects in a quantitative sense through direct investments in the communities most affected. This must be initiated within 6 months of the exemption being granted through a partnership with experts in the field of health impact assessments with annual report backs on progress sent to the Minister.

(b) The License Holder must improve greenspaces, particularly around established healthcare facilities and schools. The licence holder must create one greenspace per year in the community situated to closest to the power station to which the power station's exemption application relate, starting with the worst affected community in terms of ambient air quality. In addition, the power station may use some of its unused land to establish green spaces which has to involve planting of large scale tree farms that will improve ambient air quality by reducing wind-blown PMs. The licence holder must explain the benefits of establishing green spaces in order to get buy-in from the people in the community who can be enlisted to assist with establishing the green spaces.

Socio-economic interventions

(c) The Licence Holder must implement waste collection interventions associated with illegal mining dumps within twelve months.

(d) The Licence Holder must submit plans within six months of the issuance of the AEL that comprehensively address how it intends to deal with the ash dump it has established in the various areas, and must set out clear timelines for when it will address the issues. These timelines must fall within the time period that the AEL is in place.

Air quality transparency and governance

(e) The Licence Holder must compile or update, if already in existence, the air quality monitoring plans and submitted to the National Air Quality Officer within six months of the exemption being granted. This monitoring plan must:

i. Indicate the reasoning behind the placement of the minimum two monitors around the power station (with reference to the dispersion modelling done, showing that placement is capturing predicted ambient peaks) and justification for the equipment selected;

ii. Present calibration schedules, backup power options, backup equipment, data quality assurance and quality control (QA/QC); and

iii. Stipulate that the monthly monitoring reports as well as annual reports (showing seasonal patterns and trends over the full/multi-year monitoring period, with comparisons with abatement schedules) must be submitted to the National Air Quality Officer.

(f) The Licence Holder must commission/maintain at least two continuous air quality monitoring stations (measuring PM_{10}, $PM_{2.5}$, NO_2 and SO_2) within twelve months of the exemption being granted.

(g) The Licence Holder must ensure continuous data from the two monitoring stations and it will not be satisfactory to attribute responsibility to SAWS for data gaps.

(h) The power station's monitoring stations must comply to International Organization for Standardization (ISO) 14001 environmental standards, but it is free to select what technology will be utilised (e.g. low-cost sensors could be considered).

(i) The ambient air quality monitoring data at a minimum of two monitoring stations must be published live/in real time on the Eskom website in addition to being live fed to the Department (DFFE) so that it can be reported on the SAAQIS web portal. Additionally, for comparison, the licence holder must provide live daily stack emission data for each of the pollutants on Eskom's website for full disclosure to all stakeholders and this data must be live fed to the Department so that it can be reported on the SAAQIS web portal with immediate effect. This will enable stakeholders to access information relating to Eskom Kendal Power Station's compliance with its obligations, as set out in the AEL.

(j) Any exceedances of the recommended emission limits will require a full atmospheric dispersion assessment to determine likely health incidents (with reporting that is in line with the Atmospheric Impact Report Regulations) within a timeframe as required by the licensing authority.

Submission of current coal flexibilization studies

(k) The licence holder must submit the current coal flexibilization studies to the Minister by September 2025 and must publish these studies for stakeholder comment.

(l) These coal flexibilization studies will include Eskom investigating the changes required to enable the plant to run at lower minimum loads and respond quickly when required to ramp up and down. The three categories of changes to be investigated are as follows:

i. Tier 1 linked to operational procedure changes;
ii. Tier 2 minor equipment changes; and
iii. Tier 3 possible large equipment upgrades.

(m) Other investigations will be the possibility of including "operational flexibility" operator training utilising the operator simulator. Plasma and low-fuel igniter technologies are to be investigated to support operation at lower loads and this project's demonstration phase should be completed in 2026.

7.2.20. The licence holder's failure to comply with these conditions may result in the licensing authority revoking or suspending the licence in terms of Section 47A of NEM: AQA.

7.3. Reporting Group / Emission Unit – maximum emission rates (under start-up, maintenance and shut-down conditions) there are no abnormal limit, therefore exceedance above maximum release rate shall be reported to the licensing authority.

RG/EU Code	Listed Activity	Pollutant Name	Maximum Release Rate (mg/Nm^3)	Date to be Achieved	Average Period	Maximum Gas Volumetric Flow (m^3/hr)	Maximum Gas Exit Velocity (m/s)	Emission Hours	Permitted Duration of Emissions
EU0001 (Boiler Unit 1)	SA0101	PM	100	Immediate	Daily	1320.5	32	24	Continuous
			50	01 April 2026					
		SO_2	3000	Immediate – 01 April 2030					
			1000	01 April 2036 (Should semi-dry FGD be installed)					
		NO_X	1100	Immediate					
			750	01 April 2025					
EU0002 (Boiler Unit 2)	SA0101	PM	100	Immediate	Daily	1320.5	32	24	Continuous
			50	01 April 2026					
		SO_2	3000	Immediate – 01 April 2030					
			1000	01 April 2036 (Should semi-dry FGD be installed)					
		NO_X	1100	Immediate					
			750	01 April 2025					
EU0003 (Boiler Unit 3)	SA0101	PM	100	Immediate	Daily	1320.5	32	24	Continuous
			50	01 October 2025					
		SO_2	3000	Immediate – 01 April 2030					
			1000	01 April 2036					

RG/EU Code	Listed Activity	Pollutant Name	Maximum Release Rate (mg/Nm³)	Date to be Achieved	Average Period	Maximum Gas Volumetric Flow (m³/hr)	Maximum Gas Exit Velocity (m/s)	Emission Hours	Permitted Duration of Emissions
				(Should semi-dry FGD be installed)					
		NO_X	1100	Immediate					
			750	01 April 2025					
EU0004 (Boiler Unit 4)	SA0101	PM	100	Immediate	Daily	1320.5	32	24	Continuous
			50	01 October 2025					
		SO_2	3000	Immediate – 01 April 2030					
			1000	01 April 2036 (Should semi-dry FGD be installed)					
		NO_X	1100	Immediate					
			750	01 April 2025					
EU0005 (Boiler Unit 5)	SA0101	PM	100	Immediate	Daily	1320.5	32	24	Continuous
			50	01 April 2026					
		SO_2	3000	Immediate – 01 April 2030					
			1000	01 April 2036 (Should semi-dry FGD be installed)					
		NO_X	1100	Immediate					
			750	01 April 2025					
EU0006 (Boiler Unit 6)	SA0101	PM	100	Immediate	Daily	1320.5	32	24	Continuous
			50	01 October 2025					
		SO_2	3000	Immediate – 01 April 2030					

RG/EU Code	Listed Activity	Pollutant Name	Maximum Release Rate (mg/Nm³)	Date to be Achieved	Average Period	Maximum Gas Volumetric Flow (m³/hr)	Maximum Gas Exit Velocity (m/s)	Emission Hours	Permitted Duration of Emissions
			1000	01 April 2036 (Should semi-dry FGD be installed)					
		NO_X	1100	Immediate					
			750	01 April 2025					

The following conditions must be adhered to at a minimum during start-up, maintenance and shutdown conditions:

7.3.1. The license holder must take all reasonable measures to control atmospheric emissions during start-up, maintenance and shutdown operations.

7.3.2. Normal start-up, break-down/maintenance/upset and shut-down conditions shall not exceed a period of 48 hours. Events that are likely to occur at the power station which will not be considered as incidents in terms of Section 30 of NEMA and shall be treated as non-compliances to the provisions of Section 28 of NEMA are as follows:

i. Electricity generation capacity constraints and impact thereof of existing power generation infrastructure;
ii. Deep structural and maintenance problems of the power station's current and ageing fleet of generators;
iii. Inadequate maintenance of ailing infrastructure, resulting in continuous failure of the same infrastructure;
iv. Inadequate infrastructure;
v. Faulty installations;
vi. Delayed dusting;
vii. Seasonal rainfall, including heavy rainfall;
viii. Malfunctioning and/or faulty equipment;
ix. Accumulation of fly ash inside Electrostatic Precipitator (ESP) hoppers;
x. Continuing operation despite the fact that a unit thereof if under repair, undergoing maintenance and the licence holder is aware that such infrastructure or parts are not fully functional;
xi. Incorrect top cages that result in frequent cuff leaks which lead to high PM emissions;

xii. Essential spares and equipment not readily available;

xiii. Electrostatic precipitator fields in pulsing mode instead of 'continuous; and

xiv. Incorrect inlet temperature.

7.3.7. Reporting on PM, SO_2 and NO_x emissions to commence 24 hours after the unit has synchronized with the grid during start–up and should be below the limit value within 48 hours of synchronizing with the grid.

7.3.3. In order to put into effect section 42 of the Act, the license holder shall, on receipt of the Atmospheric Emission License, undertake an investigation to measure, monitor and report on point source emissions released during start-up, maintenance, and shut-down conditions.

7.3.4. In order to put into effect, the provision of section 42 of the Act, the licensing authority may from time to time review the conditions set herein and may set maximum emission limits to be adhered to by the license holder during start-up, maintenance, and shutdown conditions.

7.3.5. The license holder shall be liable to prevent and mitigate against the risk of harm to human health and the environment and shall put in place measures necessary to prevent and/ or mitigate against such risks.

7.3.8 During start –up, maintenance and shut-down, or in the event where there is an indication of adverse impacts to human health and/ or the environment the license holder must take appropriate measures to avoid such adverse impacts from occurring and/ or recurring.

7.3.9. The license holder must report on abatement utilization and efficiency monthly.

7.3.10. Abatement equipment must be maintained to ensure that it is operational when the associated boiler is under normal operating conditions. The utilization values stated in Table 7.1 are applicable when the associated boiler is under normal operating conditions.

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

RG/EU Code	Listed Activity	Pollutant	Emission Sampling/ Monitoring Method	Sampling Testing Frequency	Monitoring Duration	Parameters to be Measured	Parameters to be Reported	Reporting Frequency
EU0001 (Boiler Unit 1)	SA0101	PM, SO_2, NO_x	Isokinetic sampling (Correlation and parallel tests) as per Annexure A of GN893 of 22 November 2013	Every two years	As per Annexure A of GN893 of 22 November 2013	PM, SO_2, NO_x	PM, SO_2, NO_x	Annual
			Continuous Emissions Monitoring as per Annexure A of GN893 of 22 November 2013	Continuous Emissions Monitoring	Continuous, min. 80% valid hourly averages.	PM, SO_2, NO_x	PM, SO_2, NO_x	Monthly
EU0002 (Boiler Unit 2)	SA0101	PM, SO_2, NO_x	Isokinetic sampling (Correlation and parallel tests) as per Annexure A of GN893 of 22 November 2013	Every two years	As per Annexure A of GN893 of 22 November 2013	PM, SO_2, NO_x	PM, SO_2, NO_x	Annual
			Continuous Emissions Monitoring as per Annexure A of GN893 of 22 November 2013	Continuous Emissions Monitoring	Continuous, min. 80% valid hourly averages.	PM, SO_2, NO_x	PM, SO_2, NO_x	Monthly
EU0003 (Boiler Unit 3)	SA0101	PM, SO_2, NO_x	Isokinetic sampling (Correlation and parallel tests) as per Annexure A of	Every two years	As per Annexure A of GN893 of 22	PM, SO_2, NO_x	PM, SO_2, NO_x	Annual

RG/EU Code	Listed Activity	Pollutant	Emission Sampling/ Monitoring Method	Sampling Testing Frequency	Monitoring Duration	Parameters to be Measured	Parameters to be Reported	Reporting Frequency
			GN893 of 22 November 2013		November 2013			
			Continuous Emissions Monitoring as per Annexure A of GN893 of 22 November 2013	Continuous Emissions Monitoring	Continuous, min. 80% valid hourly averages.	PM, SO_2, NO_x	PM, SO_2, NO_x	Monthly
EU0004 (Boiler Unit 4)	SA0101	PM, SO_2, NO_x	Isokinetic sampling (Correlation and parallel tests) as per Annexure A of GN893 of 22 November 2013	Every two years	As per Annexure A of GN893 of 22 November 2013	PM, SO_2, NO_x	PM, SO_2, NO_x	Annual
			Continuous Emissions Monitoring as per Annexure A of GN893 of 22 November 2013	Continuous Emissions Monitoring	Continuous, min. 80% valid hourly averages.	PM, SO_2, NO_x	PM, SO_2, NO_x	Monthly
EU0005 (Boiler Unit 5)	SA0101	PM, SO_2, NO_x	Isokinetic sampling (Correlation and parallel tests) as per Annexure A of GN893 of 22 November 2013	Every two years	As per Annexure A of GN893 of 22 November 2013	PM, SO_2, NO_x	PM, SO_2, NO_x	Annual
			Continuous Emissions Monitoring	Continuous Emissions Monitoring	Continuous, min. 80%	PM, SO_2, NO_x	PM, SO_2, NO_x	Monthly

RG/EU Code	Listed Activity	Pollutant	Emission Sampling/ Monitoring Method	Sampling Testing Frequency	Monitoring Duration	Parameters to be Measured	Parameters to be Reported	Reporting Frequency
			as per Annexure A of GN893 of 22 November 2013		valid hourly averages.			
EU0006 (Boiler Unit 6)	SA0101	PM, SO_2, NO_x	Isokinetic sampling (Correlation and parallel tests) as per Annexure A of GN893 of 22 November 2013	Every two years	As per Annexure A of GN893 of 22 November 2013	PM, SO_2, NO_x	PM, SO_2, NO_x	Annual
			Continuous Emissions Monitoring as per Annexure A of GN893 of 22 November 2013	Continuous Emissions Monitoring	Continuous, min. 80% valid hourly averages.	PM, SO_2, NO_x	PM, SO_2, NO_x	Monthly

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
EU0007 EU0013 EU0016	• Mine Coal Conveyor Belt • Conveyor Belts • Ash Conveyor Belts	• Ensure that conveyors are covered. • Daily inspection checks.	Immediately	• Visual inspections • Monthly Fall Out Dust Monitoring and report monthly to the Licensing Authority. • Elemental analysis of fall out dust as and when required by the Licensing Authority.	• In line with the facility's Environmental Management Plan. • In line with the facility's approved Dust Management Plan. • In line with the facility's Fugitive Emissions Management Plan. • Environmental Management Audits in order to implement preventative and corrective actions.
EU0008	Coal Sampling Plant	• Adherence to maintenance plan. • Daily inspection checks.	Immediately	• Visual inspections • Monthly Fall Out Dust Monitoring and report monthly to the Licensing Authority. • Elemental analysis of fall out dust as and when required by the Licensing Authority.	• In line with the facility's Environmental Management Plan. • In line with the facility's approved Dust Management Plan. • In line with the facility's Fugitive Emissions Management Plan. • Environmental Management Audits in order to implement preventative and corrective actions.

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
EU0009 EU0018 EU0020 EU0021	• Unpaved Roads (around coal stockyard) • Unpaved Roads (around Emergency Ash Dump) • Unpaved Roads (around dams) • Unpaved Roads (around Ash Dump)	• Dust suppression by spraying water • Adherence to speed limits to minimise dust fall out.	Immediately	• Visual inspections • Monthly Fall Out Dust Monitoring and report monthly to the Licensing Authority. • Elemental analysis of fall out dust as and when required by the Licensing Authority.	• In line with the facility's Environmental Management Plan. • In line with the facility's approved Dust Management Plan. • In line with the facility's Fugitive Emissions Management Plan. • In line with the facility's Traffic Management Plan. • Increase frequency of dust suppression. • Environmental Management Audits in order to implement preventative and corrective actions.
EU0010	Coal Stockpile	• Dust suppression by spraying water. • Compaction of coal stockpile to minimise dust fall out.	Immediately	• Visual inspections • Monthly Fall Out Dust Monitoring and report monthly to the Licensing Authority. • Elemental analysis of fall out dust as and when required by the Licensing Authority.	• In line with the facility's Environmental Management Plan. • In line with the facility's approved Dust Management Plan. • In line with the facility's Fugitive Emissions Management Plan. • Increase frequency of dust suppression.

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
					• Environmental Management Audits in order to implement preventative and corrective actions.
EU0011	Fuel Oil Storage	• Enclosed tanks and visual Inspection • Daily operator inspection • Bi-annual engineering visual inspection • Adherence to plant procedure and philosophies.	Immediately	• Visual inspections • Audits • Estimation of VOC (BTEX) • Wall thickness test report	• In line with the facility's Environmental Management Plan. • In line with the facility's Maintenance Plan. • Environmental Management Audits to implement preventative and corrective actions.
EU0012	Diesel Tanks	• Enclosed tanks and visual Inspection • Daily operator inspection • Bi-annual engineering visual inspection. • Adherence to plant procedure and philosophies.	Immediately	• Visual inspections • Audits • Estimation of VOC (BTEX) • Wall thickness test report	• In line with the facility's Environmental Management Plan. • In line with the facility's Maintenance Plan. • Environmental Management Audits to implement preventative and corrective actions.
EU0013	Coal Mills	• Daily operator inspection	Immediately	• Visual inspections	• In line with the facility's Environmental Management Plan.

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
		• Adherence to plant procedure and philosophies.		• Monthly Fall Out Dust Monitoring and report monthly to the Licensing Authority. Elemental analysis of fall out dust as and when required by the Licensing Authority.	• In line with the facility's Fugitive Emissions Management Plan. • In line with the facility's Milling Plant Recovery Plan. • Environmental Management Audits in order to implement preventative and corrective actions.
EU0015	Dust Handling Plant	• Dusting once every 24 hours (Manual agitation of dust hoppers). • Adherence to the facility's Integrated Particulate Emissions Reduction Strategy	Immediately	• Visual inspections • Monthly Fall Out Dust Monitoring and report monthly to the Licensing Authority. • Elemental analysis of fall out dust as and when required by the Licensing Authority.	• In line with the facility's Environmental Management Plan. • In line with the facility's approved Dust Management Plan. • In line with the facility's Fugitive Emissions Management Plan. • In line with the facility's maintenance strategy and plan. • Environmental Management Audits to implement preventative and corrective actions.
EU0017	Fly Ash Silos	• Adherence to maintenance plan.	Immediately	• Visual inspections	• In line with the facility's Environmental Management Plan.

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
		• Dust suppression by spraying water at the fly ash storage silo area. • Ensure paving of area and access routes within and around the fly ash storage silos.		• Monthly Fall Out Dust Monitoring and report monthly to the Licensing Authority. • Elemental analysis of fall out dust as and when required by the Licensing Authority.	• In line with the facility's approved Dust Management Plan. • In line with the facility's Fugitive Emissions Management Plan. • In line with the facility's maintenance strategy and plan. • Environmental Management Audits to implement preventative and corrective actions.
EU0019 EU0022	• Emergency Ash Dump • Conveyor Belts	• Dust suppression. • Ash is conditioned with water before disposal at the ash dam.	Immediately	• Visual inspections • Monthly Fall Out Dust Monitoring and report monthly to the Licensing Authority. • Elemental analysis of fall out dust as and when required by the Licensing.	• In line with the facility's Environmental Management Plan. • In line with the facility's approved Dust Management Plan. • In line with the facility's Fugitive Emissions Management Plan. • In line with the facility's Rehabilitation Plan for the Ash Dump. • Environmental Management Audits to implement preventative and corrective actions.

(a) The following special arrangement shall apply for the storage and handling of raw material, intermediate and final products with a vapour pressure greater than 14 kPa at operating temperature: - Leak detection and repair (LDAR) program approved by licensing authority must be instituted.

(b) The following transitional and special arrangement shall apply for control of TVOC's from storage of raw materials, intermediate and final products with vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (Alternative control measures that can achieve the same or better results may be used) – (i) storage vessels for liquids must be of the following type:

Application	All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1 000 cubic metres
True vapour of contents at product storage temperature	type of tank or vessels
Type 1:Up to 14 kPa	Fixed roof tank vented to atmosphere, or as per type 2 and 3
Type 2:Above 14 kPa and up to 91 kPa with a throughput of less than 50 000 m3 per annum	Fixed roof tank with pressure vacuum vents fitted as a minimum to prevent "breathing" losses or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput of greater than 50 000 m3 per annum	(a) External floating roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20 m, or (b) Fixed roof tank with internal floating deck/roof fitted with primary seal, or (c) Fixed roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

(i) The roof legs, slotted pipes and/ or dipping well on floating roof tanks (except for domed floating roof tanks or internal floating roof tanks) shall have sleeves fitted to minimize emissions.

(ii) Relief valves on pressurised storage should undergo periodic checks for internal leaks. This can be carried out using portable acoustic monitors or if venting to atmosphere with an accessible open end tested with a hydrocarbon analyser.

(c) The following special arrangement shall apply for the 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 of 1996:

(d) Three months running average of dust fall not to exceed limit value for adjacent land use according to Dust Control Regulations promulgated in section 32 of the NEM: AQA, 2004, in eight principal wind directions.

7.6. Routine reporting and record-keeping

Complaints register.

The licence holder must maintain 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 05 (five) years after the complaint was made.

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. 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);**
(d) **Action taken to address complaints received, and**
(e) **Annual report on implementation of Highveld Priority Areas Air Quality Management Plan, projects and/or offset programs**.

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

Greenhouse gas Reporting

Reporting in terms of Section 43 (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
Develop and submit an Emission Reduction Management Plan (ERMP) for approval to the licensing authority. The ERMP must be implemented immediately upon approval by the licensing authority. The ERMP must include the following: (a) Measures to achieve emission reduction and management; (b) Emissions reduction targets aligned to the priority area air quality management plan; and (c) Implementation timeframes to achieve emission reduction targets.	• To ensure that the facility has effective measures to reduce its emissions within the High Priority Area (HPA). • To ensure that the facility is in compliance with Minimum Emission Standards (MES) as stipulated in the NEM:AQA	Immediately

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

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

EU Code	Stack Name	Waste / Effluent Type	Hazardous Components Present	Method of Disposal
EU0001, EU0002, EU0003, EU0004, EU0005, EU0006	Boiler Unit 1, Boiler Unit 2, Boiler Unit 3, Boiler Unit 4, Boiler Unit 5, Boiler Unit 6	Solid Sulphur*	Sulphur	Registered Hazardous Waste Disposal Site
EU0001, EU0002, EU0003, EU0004, EU0005, EU0006	Boiler Unit 1, Boiler Unit 2, Boiler Unit 3, Boiler Unit 4, Boiler Unit 5, Boiler Unit 6	Ash	Heavy metals	Ash Dump (on-site)

**Solid sulphur resulting from Sulphur plant*

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

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

10. APPEAL OF LICENCE

10.1 The Licence Holder must notify every registered interested and affected party, in writing and within ten (10) days, of receiving the Municipal decision.

10.2 The notification referred to in 10.1. must:

10.2.1 Inform the registered interested and affected parties of the appeal procedure provided for in the Municipal Systems Act (Act 32 of 2000);

10.2.2 Advise the interested and affected parties that a copy of the Atmospheric Emission Licence and reasons for the decision will be furnished on request;

10.2.3 An appeal against the decision must be lodged in terms of Section 62 of Municipal Systems Act (Act 32 of 2000), with the Appeal Authority on the following address:

Nkangala District Municipality,
PO Box 437,
Middelburg,
1050

Tel No. 013 249 2000,
Fax No. 013 249 2173

and

10.2.4 Specify the date on which the Atmospheric Emission licence was issued.

MR VM MAHLANGU
ACTING GENERAL MANAGER: COMMUNITY DEVELOPMENT SERVICES
NKANGALA DISTRCIT MUNICIPALITY