



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447· PRETORIA · 0001· Environment House · 473 Steve Biko Road, Arcadia · PRETORIA

DEA Reference: 14/12/16/3/3/2/1060

Enquiries: Ms Bongeka Ngcoliso

Telephone: 012-399-9376 **E-mail:** BNgcoliso@environment.gov.za

Ms Diedre Herbst
Eskom Holdings SOC Limited
PO Box 1091
JOHANNESBURG
2157
Tel: (011) 800 3501
Cell: (083) 660 1147
E-mail: HerbstDL@eskom.co.za

PER E-MAIL / MAIL

Dear Ms Herbst

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998), AS AMENDED (NEMA); GOVERNMENT NOTICES. R982, R983 AND R984, AS AMENDED: PROPOSED RETROFITTING OF A FLUE GAS DESULPHURISATION (FGD) SYSTEM AT THE MEDUPI POWER STATION WITHIN LEPHALALE LOCAL MUNICIPALITY, LIMPOPO PROVINCE

With reference to the above application, please be advised that the Department has decided to grant an environmental authorisation to you. The Environmental Authorisation (EA) and reasons for the decision are attached herewith.

In terms of Regulation 4(2) of the National Environmental Management Act: the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties, in writing within 14 (fourteen) days of the date of this EA, of the Department's decision as well as the provisions regarding the submission of appeals that are contained in the Regulations.

In terms of the Promotion of Administrative Justice Act, 2000 (Act No 3 of 2000), you are entitled to the right to fair, lawful and reasonable administrative action; and to written reasons for administrative action that affects you negatively. Further your attention is drawn to the provisions of the Protection of Personal Information Act, 2013 (Act no. 4 of 2013) which stipulates that the Department should conduct itself in a responsible manner when collecting, processing, storing and sharing an individual or another entity's personal information by holding the Department accountable should the Department abuses or compromises your personal information in any way.

Your attention is drawn to Chapter 2 of National Environmental Management Act, 1998 (Act No. 107 of 1998) National Appeal Regulations published under Government Notice R993 in Government Gazette No. 38303 dated 08 December 2014 (National Appeal Regulations, 2014), which prescribe the appeal procedure to be followed. Kindly include a copy of this document (National Appeal Regulations, 2014) with the letter of notification to interested and affected parties in this matter.

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Should any person wish to lodge an appeal against this decision, he/she must submit the appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party, and any organ of state with interest in the matter within 20 days from the date that the notification of the decision was sent to the registered interested and affected parties by the applicant; or the date that the notification of the decision was sent to the applicant by the Department, whichever is applicable.

Appeals must be submitted in writing in the prescribed form to:

Director: Appeals and Legal Review of this Department at the below mentioned addresses.

By email: appealsdirector@environment.gov.za

By hand: Environment House
473 Steve Biko Street
Arcadia
Pretoria
0083; or

By post: Private Bag X447
Pretoria
0001

Please note that in terms of Section 43(7) of the NEMA, the lodging of an appeal will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with any activity authorised in the EA until such time that the appeal is finalised.

To obtain the prescribed appeal form and for guidance on the submission of appeals, please visit the Department's website at https://www.environment.gov.za/documents/forms#legal_authorisations or request a copy of the documents at appealsdirector@environment.gov.za.

Yours faithfully



Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs

Date: 06/09/2018

CC:	Dr Mathys Vosloo	Zitholele Consulting Pty Ltd	Tel: 011 270 2079	Email: mathysv@zitholele.co.za
	Mr Tsholedi Joel Ngoasheng	Limpopo Economic Development, Environment and Tourism	Tel: 015 290 7134	Email: NgoashengTJ@ledet.gov.za





environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of regulation 25 of the Environmental Impact Assessment Regulations, 2014

Medupi Power Station Flue Gas Desulphurisation (FGD) Retrofit Project

Waterberg District Municipality

Authorisation register number:	<i>14/12/16/3/3/2/1060</i>
Last amended:	<i>First issue</i>
Holder of authorisation:	<i>ESKOM HOLDINGS SOC LIMITED</i>
Location of activity:	<i>LIMPOPO PROVINCE: Within Ward 3 of Lephalale Local Municipality</i>

This environmental authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

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Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this environmental authorisation, that the applicant should be authorised to undertake the activities specified below.

Non-compliance with a condition of this environmental authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 and the EIA regulations.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Activities authorised

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No.107 of 1998) and the Environmental Impact Assessment Regulations, 2014 the Department hereby authorises –

ESKOM HOLDINGS SOC LIMITED

(hereafter referred to as the **holder of the authorisation**)

with the following contact details –

Ms Diedre Herbst

Eskom Holdings SOC Limited

PO Box 1091

JOHANNESBURG

2157

Tel: (011) 800 3501

Cell: (083) 660 1147

E-mail: HerbstDL@eskom.co.za.

to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1 and Listing Notice 2 of 2014 EIA Regulations as amended:

Listed activities	Activity/Project description
<p><u><i>GN R. 327 Activity 9:</i></u> <i>The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or storm water - (i) with an internal diameter of 0,36 metres or more.</i></p>	<p>Construction of clean and dirty water infrastructure associated with the rail yard and FGD infrastructure will be greater than 360mm and 1km in length.</p>
<p><u><i>GN R.327 Activity 12</i></u> <i>The development of (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs- (a) within a watercourse; or c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.</i></p>	<p>Construction of the proposed rail yard or rail siding take-of point from the existing Thabazimbi – Lephalale mainline will occur within 32 m of the wetlands identified bordering the existing railway line, while construction of the rail yard infrastructure, gypsum and limestone handling facilities and proposed pollution control dam will occur within 32 m of an existing pan located on the western border of the rail yard development area.</p>
<p><u><i>GN R.327. Activity 19</i></u> <i>The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells,</i></p>	<p>infilling or excavation of more than 10m³ within a watercourse will occur during construction of the</p>

Listed activities	Activity/Project description
<i>shell grit, pebbles or rock of more than 10 cubic metres from a watercourse.</i>	rail yard and associated infrastructure.
<p><u>GN R.327, Activity 25</u></p> <p>The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2 000 cubic metres but less than 15 000 cubic metres.</p>	<p>The proposed (Waste Water Treatment Plant) WWTP, which will be operated as a Zero Liquid Effluent Discharge (ZLED) plant to treat wastewater originating from the FGD infrastructure, will have a daily throughput capacity of more than 2 000 m³ but less than 15 000 m³.</p>
<p><u>GN R.325, Activity 4</u></p> <p>The development and related operation of facilities or infrastructure, for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic metres.</p>	<p>The construction of facilities or infrastructure for the handling, storage, and transportation (conveyance) of gypsum, (Waste Water Treatment Plant) WWTP salts and sludge (~1420m³), diesel and chemical substances that will be stored and used in the rail yard workshops within the FGD footprint and rail yard will cumulatively be more than 500m³</p>
<p><u>GN R.325, Activity 6</u></p> <p><i>The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in</i></p>	<p>A new Water Use Licence will be required to support the project (as part of the</p>

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Listed activities	Activity/Project description
<i>terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent.</i>	station); an amendment or variation of the station's Atmospheric Emission Licence will be required; and the Waste Management Licence for the Ash Disposal Facility will be required. All these permits are affected by the proposed FGD development.
<p><u>GN R.325, Activity 7</u></p> <p>The development and related operation of facilities or infrastructure for the bulk transportation of dangerous goods –</p> <p>(iii) in solid form, outside an industrial complex, using funiculars or conveyors with a throughput capacity of more than 50 tons per day.</p>	The operation and transportation (conveyance) of gypsum, Waste Water Treatment Plant (WWTP) salts and sludge, diesel and chemical substances that will be stored and used in the rail yard workshops within the FGD footprint and rail yard will be more than 50 tons per day.
<p><u>GN R.325, Activity 12</u></p> <p><i>The development of railway lines, stations or shunting yards.</i></p>	The construction of a railway tie-in line and yard for purposes of transport of products to the Power Station and waste products from the Power Station.

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Listed activities	Activity/Project description
<p><u>GN R.325, Activity 15</u> The clearance of an area of 20 hectares or more of indigenous vegetation.</p>	<p>The total development footprint of the railway yard and associated infrastructure will be greater than 20ha, therefore the clearance of more than 20ha indigenous vegetation will be required.</p>

as described in the Final Environmental Impact Report (FEIAR) dated 24 May 2018 at:

Farm Names:

- Portion 0 of Farm Naauw Ontkomen 509 LQ;
- Portion 0 of Farm Eenzaamheid 687 LQ and
- Portion 0 of Farm Kromdraai 690 LQ

21 Digit SG code:

T	0	L	Q	0	0	0	0	0	0	0	0	0	5	0	9	0	0	0	0	0
T	0	L	Q	0	0	0	0	0	0	0	0	0	6	8	7	0	0	0	0	0
T	0	L	Q	0	0	0	0	0	0	0	0	0	6	9	0	0	0	0	0	0

Development footprint point	Latitude (DMS)	Longitude (DMS)
Corner Point A	23°42'34.88"S	27°32'40.66"E
Corner Point B	23°42'35.73"S	27°33'11.34"E
Corner Point C	23°42'25.30"S	27°33'31.10"E
Corner Point D	23°42'15.17"S	27°33'24.72"E
Corner Point E	23°42'06.49"S	27°33'41.51"E
Corner Point F	23°42'35.56"S	27°33'59.42"E
Corner Point G	23°43'16.10"S	27°31'38.02"E
Corner Point H	23°43'14.84"S	27°31'39.86"E
Corner Point I	23°42'58.62"S	27°32'36.00"E
Shape Centre Point J (Centroid)	23°42'42.03"S	27°33'15.92"E

the location indicated in the locality plan, attached as Annexure 2 of this authorisation.

- for the retrofitting of a Flue Gas Desulphurisation (FGD) system at the Medupi Power Station within Lephale Local Municipality in the Limpopo Province.

The infrastructure associated with this facility includes:

- The construction and operation of a railway yard or rail siding to receive Limestone and transport gypsum via rail,
- The installation of diesel storage facilities within the FGD and railway yard footprint,
- The construction and operation of the wet FGD system as well as associated infrastructure required for operation of the FGD system,
- The handling, treatment and conveyance of gypsum and effluent,
- The construction and operation of a Waste Water Treatment Plant (WWTP), and the management, handling, transport and storage of salts and sludge generated through the waste water treatment process at a temporary waste storage facility; and a complete water management system.
- The transportation of salts and sludge via trucks from the temporary waste storage facility to a final Waste Disposal Facility to be contracted by Eskom for the first 5 years of operation of the FGD system.

Conditions of this Environmental Authorisation

Scope of authorisation

1. The retrofitting of a Flue Gas Desulphurisation (FGD) system at the Medupi Power Station is approved as per the geographic coordinates cited at the table reflected in page 6 above.
2. Authorisation of the activity is subject to the conditions contained in this environmental authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.
3. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.

4. The activities authorised may only be carried out at the property as described above.
5. Any changes to, or deviations from, the project description set out in this environmental authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further environmental authorisation in terms of the regulations.
6. The holder of an environmental authorisation must apply for an amendment of the environmental authorisation with the competent authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.
7. This activity must commence within a period of **five (05) years** from the date of issue of this environmental authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.
8. Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.

Notification of authorisation and right to appeal

9. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this environmental authorisation, of the decision to authorise the activity.
10. The notification referred to must –
 - 10.1. specify the date on which the authorisation was issued;
 - 10.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 10.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 10.4. give the reasons of the competent authority for the decision.

Commencement of the activity

11. The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014 and no appeal has been lodged against the decision.
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In terms of section 43(7), an appeal under section 43 of the National Environmental Management Act, 1998 will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.

Management of the activity

12. The Environmental Management Programme (EMPr) submitted as part of the Application for EA is hereby approved. This EMPr must be implemented and strictly adhered to.

Frequency and process of updating the EMPr

13. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 23 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.
14. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
15. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of GN R. 982. The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EMPr to the Department for approval.
16. In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of GN R.982. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.
17. The holder of the authorisation may apply for an amendment of an EMPr, if such amendment is required before an audit is required. The holder must notify the Department of its intention to amend the EMPr at least 60 days prior to submitting such amendments to the EMPr to the Department for approval. In assessing whether to grant such approval or not, the Department will consider the processes and requirements prescribed in Regulation 37 of GN R. 982.

Monitoring

18. The holder of the authorisation must appoint an experienced independent Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.
- 18.1. The ECO must be appointed before commencement of any authorised activities.
- 18.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department at Directorcompliance@environment.gov.za.
- 18.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
- 18.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

Recording and reporting to the Department

19. All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the *Director: Compliance Monitoring* of the Department at Directorcompliance@environment.gov.za.
20. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the *Director: Compliance Monitoring* of the Department at Directorcompliance@environment.gov.za.
21. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of GN R. 982.
22. The holder of the authorisation must, in addition, submit an environmental audit reports to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
23. The environmental audit reports must be compiled in accordance with appendix 7 of the EIA Regulations, 2014 and must indicate the date of the audit, the name of the auditor and the outcome

of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.

24. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

Notification to authorities

25. A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.

Operation of the activity

26. A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.

Site closure and decommissioning

27. Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.

Specific conditions

28. The EA holder must ensure that the storage areas have firm, waterproof base and drainage system. It must be designed and managed such that there is no escape of contaminants to the environment. All runoff must be prevented from entering local watercourses including wetlands.
29. The holder of environmental authorisation must prevent spillages. Where the spillages occur, the holder of authorisation must ensure the effective and safe cleaning of such spillages.
30. The Waste Management Licence (WML) for the existing ash disposal facility must be amended to allow the co-disposal of ash and gypsum. The amendment of the WML must be obtained prior to any co-disposal to the current ash disposal facility.

31. The holder of environmental authorisation must prevent the occurrence of nuisance conditions or health hazards.
32. No effluent must be discharged into any storm water drain or furrow, whether by commission or by omission.

General

33. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
 - 33.1. at the site of the authorised activity;
 - 33.2. to anyone on request; and
 - 33.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.
34. National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Date of environmental authorisation: 06/09/2018



Mr Sabelo Malaza

Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs

Annexure 1: Reasons for Decision

1. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The information contained in the EIAr dated 24 May 2018;
- b) The comments received from the Limpopo Department of Economic Development, Environment and Tourism (LDEDET) and interested and affected parties as included in the EIAr dated 24 May 2018;
- c) Mitigation measures as proposed in the EIAr dated 24 May 2018 and the EMPr;
- d) The information contained in the specialist studies contained within Appendix D of the EIAr; and
- e) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No.107 of 1998).

2. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The findings of all the specialist studies conducted and their recommended mitigation measures.
- b) The need for the proposed retrofitting of Flue Gas Desulphurisation (FGD) technology to remove sulphur dioxide from the exhaust flue gases of the Medupi Power Station operations, Eskom Holdings SOC Limited, established a SO₂ emissions target of 400mg/Nm³ at 6% O₂ for power stations commissioned between 2002 and 2017. This target complies with the minimum emissions standards stipulated by the National Environmental Management: Air Quality Act (Act 39 of 2004), which requires a concentration of 500mg/Nm³ at 10% O₂. The Air Quality Strategy further recommended that the Medupi Power Station be fitted with a flue gas desulphurisation technology in order to comply with the emissions standards set. Therefore in response to the Eskom Air Quality Strategy and funder requirements, the Medupi Power Station units have been designed, and

constructed, with provisions incorporated into the space and equipment design to accommodate the installation of the wet limestone FGD system.

- c) The EIAr dated 24 May 2018 identified all legislation and guidelines that have been considered in the preparation of the EIAr dated 24 May 2018.
- d) The methodology used in assessing the potential impacts identified in the EIAr dated 24 May 2018 and the specialist studies have been adequately indicated.
- e) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2014 for public involvement.

3. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the EIAr dated 24 May 2018 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- d) The information contained in the EIAr dated 24 May 2018 is accurate and credible.
- e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the BAR and will be implemented to manage the identified environmental impacts during the construction phase.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the authorised activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. The environmental authorisation is accordingly granted.

Annexure 2: Locality Plan

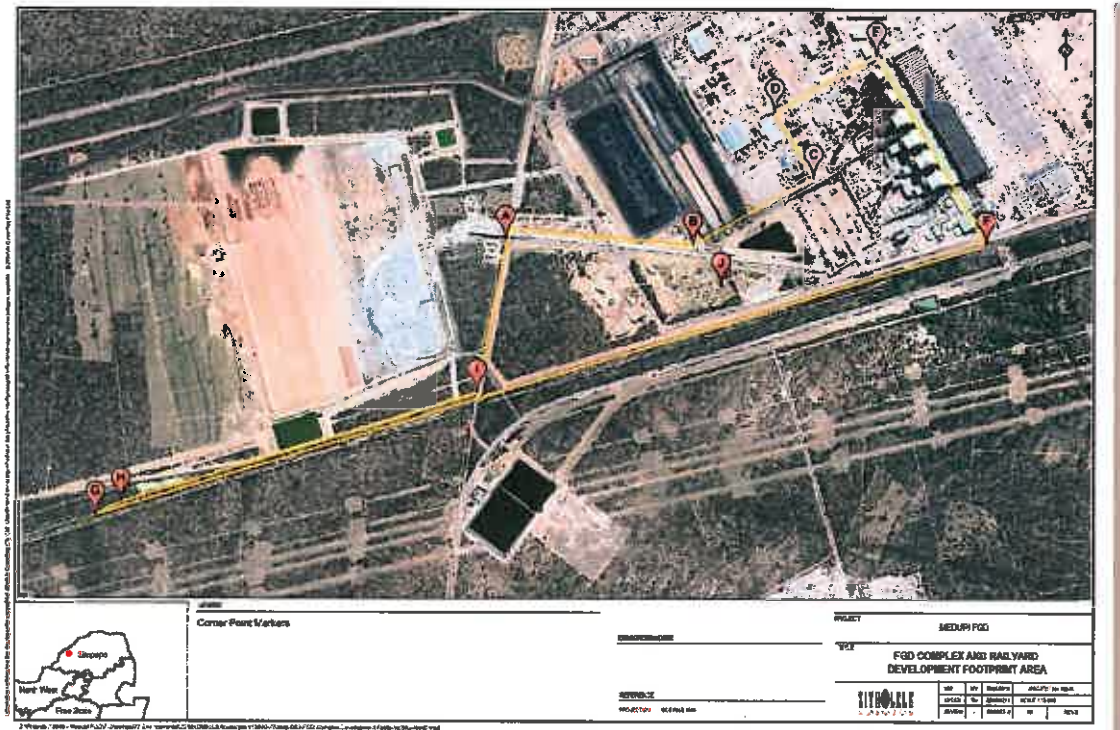


Figure 1: FGD complex and railyard development footprint area



Figure 2 :Railyard development footprint area

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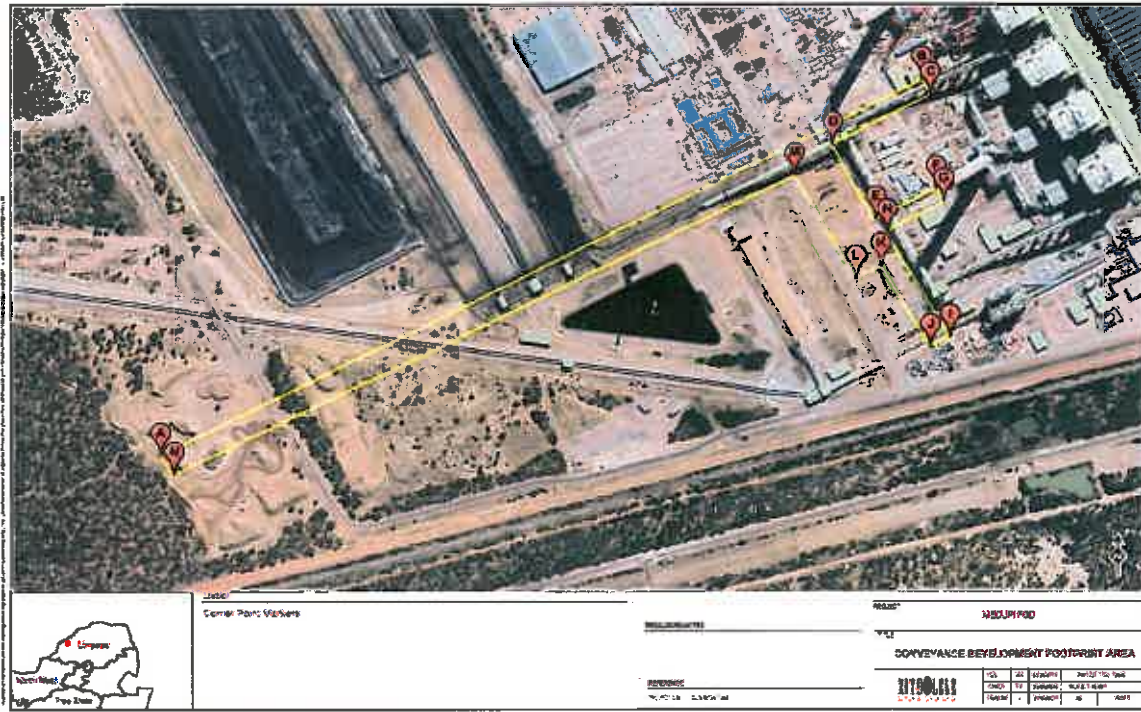


Figure 3: Conveyance development footprint area



Figure 4: Medupi FGD development footprint area

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