



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DEA EIA Reference Number:

12/12/20/2175

NEAS Ref Number: DEA/EIA/0000390/2011

(For official use only)

File Reference Number:

12/12/20/ or 12/9/11/L

NEAS Reference Number:

DEAT/

Date Received:

Application for integrated environmental authorisation and waste management licence in terms of the-

- (1) National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010; and
- (2) National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and Government Notice 921 of 2013.

PROJECT TITLE

ENVIRONMENTAL IMPACT ASSESSMENT AND WASTE MANAGEMENT LICENSE APPLICATION FOR THE PROPOSED EXTENSION OF ASH DISPOSAL FACILITIES AT THE HENDRINA POWER STATION, MPUMALANGA PROVINCE

PART A: INFORMATION AND APPLICATION PROCESS

1. DEFINITIONS

Definitions in this form are as per the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), the Environmental Impact Assessment ("EIA") Regulations, 2010, the National Environmental Management: Waste Act, 1998 (Act No. 59 of 2008) ("NEMWA") and the Schedule contained in Government Notice 718, published on 3 July 2009 in terms of section 19 of NEMWA.

2. APPLICABILITY OF INTEGRATED ENVIRONMENTAL AUTHORISATION PROCESS

The integrated environmental authorisation process only apply in instances where the **Minister** is both the-

- (a) competent authority for the environmental authorisation applied for in terms of NEMA and the EIA Regulations, 2010; and
- (b) the licencing authority for the waste management licence in terms of NEMWA.

Kindly refer to paragraph 3.2 of this part of the application to determine in which instances the Minister would be the competent authority in terms of NEMA and the licencing authority in terms of NEMWA.

3. APPLICATION PROCESS EXPLAINED:

3.1 Integrated environmental authorisation process:

3.1.1 The environmental authorisation process prescribed for listed activities under Listing Notices 1, 2 and 3 published in Government *Gazette* Numbers R544, R545 and R546 respectively and the waste licensing process for listed activities contained in the Schedule in Government Notice 921, 2013 published in terms of section 19 of NEMWA are as defined in the Environmental Impact Assessment (EIA) Regulations made under section 24(5) of the National Environmental Management Act, 2008 (Act No. 107 of 1998) ("NEMA").

3.1.2 This integrated application form is the official form in terms of regulation 12(2)(a) of the EIA Regulations, 2010 and must accompany every integrated environmental authorization application pertaining to-

- listed activities in terms of NEMA; and
- waste activities in terms of NEMWA.

3.2 Competent Authority (Where to submit applications)

3.2.1 The Minister of Water and Environmental Affairs is the-

- competent authority in respect of the activities listed in Listing Notices 1, 2 and 3, published in Government *Gazette* numbers R544, R545, and R546 respectively, in terms of NEMA if the activity-
 - (a) has implications for international environmental commitments or relations;
 - (b) will take place within an area protected by means of an international environmental instrument, other than-
 - (i) any area falling within the sea-shore or within 150 meters seawards from the high-water mark, whichever is the greater;
 - (ii) a conservancy;
 - (iii) a protected natural environment;
 - (iv) a proclaimed private nature reserve;
 - (v) a natural heritage site; and
 - (vi) the buffer zone or transitional area of a world heritage site;
 - (c) has a development footprint that falls within the boundaries of more than one province or traverses international boundaries;
 - (d) is undertaken, or is to be undertaken by-
 - (i) A national department;
 - (ii) A provincial department responsible for environmental affairs or any other organ of state performing a regulatory function and reporting to the MEC; or
 - (iii) A statutory body, excluding any municipality, performing an exclusive competence of the national sphere of government; or
 - (e) Will take place within a national proclaimed protected area or other conservation area under control of a national authority.

3.2.2 The Minister of Water and Environmental Affairs is the licencing authority in respect of all activities listed in both Category A and Category B of the Schedule contained in Government Notice 921, 2013 published in terms of section 19 of NEMWA where –

- (a) Unless otherwise indicated by the Minister by notice in the *Gazette*, the waste management activity involves the establishment, operation, cessation or decommissioning of a facility at which hazardous waste has been or is to be stored, treated or disposed of;
- (b) The waste management activity involves obligations in terms of an international obligation, including the importation or exportation of hazardous waste;
- (c) The waste management activity is to be undertaken by-
 - (i) A national department;
 - (ii) A provincial department responsible for environmental affairs; or

- (iii) A statutory body, excluding any municipality, performing an exclusive competence of the national sphere of government;
- (d) The waste management activity will affect more than one province or traverse international boundaries; or
- (e) Two or more waste management activities are to be undertaken at the same facility and the Minister is the licencing authority for any of those activities.

However, despite the above-mentioned legislative provisions, the Minister and an MEC may agree that an application for a waste management activity or an environmental authorisation in respect of the above-mentioned activities, where the Minister is the competent/licencing authority, may be dealt with by the relevant MEC within whose province the activity(ies) will take place. Similarly the Minister and the MEC may agree that an application for an environmental authorisation or a waste management activity where the MEC has been identified as the competent/licencing authority, may be dealt with by the Minister. [Section 24C(3) of NEMA and section 43(3) of NEMWA]

3.2.4 The integrated application for environmental authorisation must be addressed to
The Chief Directorate: Integrated Environmental Authorisations at:

Postal address:

Department of Environmental Affairs
Attention: Director: Integrated Environmental Authorisations
Private Bag X447
Pretoria
0001

Physical address:

Department of Environmental Affairs
Environment House
473 Steve Biko Road
Arcadia
Pretoria

Queries must be addressed to the contact below:

Tel: 012 399 9372
E-mail: EIAAdmin@environment.gov.za

Please note that this form must be copied to the relevant provincial environmental department/s.

View the Department's website at <http://www.environment.gov.za> for the latest version of the documents.

3.3 Making an Application

3.3.1 This application form is current as of 1 August 2014. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority. It is the applicant's responsibility to download the current version of the application form from the website of the Department at <http://www.environment.gov.za>.

3.3.2 The application must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.

3.3.3 The applicant must clearly mark confidential sections of the information submitted in the application form and supporting documents. Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.

3.3.4 The applicant must fill in all relevant sections of this form. Incomplete applications will not be processed. The applicant will be notified of the missing information in the acknowledgement letter that will be sent within 14 days of receipt of the application.

3.3.5 Incomplete applications may be returned to the applicant for revision.

3.3.6 Sections in the form that do not apply to the applicant must be marked "not applicable". However, the use of the phrase "not applicable" in the form must be done with circumspection. Should it be done in respect of material information required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the Regulations.

3.3.7 Where applicable **black out** the boxes that are not applicable in the form.

3.3.8 This application form, must be handed in at the offices of the relevant competent authority as determined by the relevant Acts and Regulations and as indicated in this application form. All application forms must be signed as stipulated in the form. Applications that are not signed or completed accordingly will not be considered.

3.3.9 No faxed or e-mailed applications will be accepted. An electronic copy of the signed application form must be submitted together with two hardcopies (one of which must contain the original signatures).

3.3.10 Proof of payment must accompany this application. The application will not be processed without proof of payment unless one of the exclusions provided for the Fee Regulations (Fees for consideration and processing of applications for environmental authorisations and amendments thereto Government Notice No.141, published on 28 February 2014) is applicable AND such information in section 1 of this application form has been confirmed by this Department.

3.4 Appointment of an EAP

The applicant must appoint an EAP in terms of EIA Regulations, 2010;
The EAP must comply with general requirements as given in EIA regulations, 2010;
and
The EAP may be disqualified in terms of EIA Regulations, 2010.

3.5 Criteria for determining whether basic assessment or scoping is to be applied to applications

3.5.1 NEMA activities

(a) Basic assessment must be applied to an application if the authorisation applied for is in respect of an activity listed in Listing Notices 1 and/or 3 published in *Government Gazette* Numbers R544 and R546, 2010 respectively and which must follow the process described in sections 21-25 of the EIA Regulations, 2010; and

(b) Scoping and Environmental Impact Reporting Process ("S&EIR") must be applied to an application if the authorisation applied for is in respect of an activity listed in Listing Notice 2 published in *Government Gazette* Number R545, 2010 and which must follow the process described in sections 26-35 of the EIA Regulations, 2010.

3.5.2 NEMWA activities

(a) Basic assessment, in terms of sections 21-25 of the EIA Regulations, 2010, must be applied to an application if the authorisation applied for is in respect of an activity listed in Category A of the Schedule contained in Government Notice 921, published on 29 November 2013, in terms of section 19 of NEMWA; and

(b) S&EIR, in terms of sections 26-35 of the EIA Regulations, 2010, must be applied to an application if the authorisation applied for is in respect of an activity Category B of the Schedule contained in Government Notice 921, published on 29 November 2013, in terms of section 19 of NEMWA.

3.5.3 Combination of NEMA and NEMWA activities

Should any of the NEMA or NEMWA activities applied for require the application of the S&EIR process, the S&EIR process will be applied to this application for integrated environmental authorisation.

PART B: PROOF OF PAYMENT

Applicants are required to tick the appropriate box below to indicate that either proof of payment is attached or that, in the applicant's view, an exclusion applies. Proof and a motivation for exclusions must be attached to this application form in **Appendix 1**.

Proof of payment attached as **Appendix 1**

Exclusion applies

An applicant is excluded from paying fees if:

The activity is a community based project funded by a government grant; or
The applicant is an organ of state.

TYPE OF EXCLUSION	Tick where applicable. Proper motivation must be attached to the application
The activity is a community based project funded by a government grant	
The applicant is an organ of state	X

FEE AMOUNT	Fee
Applications for an environmental authorisation for which basic assessment is required in terms of the Environmental Impact Assessment Regulations	R2 000
Application for an environmental authorisation, for which S&EIR is required in terms of the Environmental Impact Assessment Regulations	R10 000

Department of Environmental Affairs' details for the payment of application fees:

<p>Payment Enquiries: Tel: 399 9119 Email: eiafee@environment.gov.za</p> <p>Banking details: ABSA Bank Branch code: 632005 Account number: 1044 2400 72 Current account Reference number : Reference number to be provided in the specific format indicating centre point coordinates of site in decimal degrees to 5 or 6 decimal places: latitude/longitude eg. -33.918861/18.423300</p> <p>Proof of payment must accompany the application form: Indicate reference number below.</p> <p>Tax exemption status: Status: Tax exempted</p> <p>Reference number:</p>
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PART C: GENERAL

1. DESCRIPTION OF PROJECT

The entire project will entail the following (full detail of the project can also be appended):

The Hendrina Power Station, in the Mpumalanga Province currently uses a wet ashing system for the disposal of ash. Hendrina Power Station currently has five wet ash disposal facilities, of which two (Ash dam 3 and 5) are currently in operation, the other three (Ash dam 1, 2 & 4) are not in use for the following reasons:

- Having reached full capacity (Dam 1)
- Stability issues (Dam 2)
- Temporary decommissioning (Dam 4).

At the current rate of disposal on Dams 3 and 5, the rate-of-rise will exceed 4m/year in 2018, which is not acceptable in terms of structural stability. The Hendrina Power Station is anticipated to ash approximately 64.2 million m³ until the end of its life span which is currently estimated to be 2035.

It has been determined, through studies, that the existing ashing facilities are not capable to provide sufficient ash disposal capacity for this amount of ash for the full life of the station. The existing facilities (Ash Dams 3 and 5) allow for the disposal of 20.9 million m³. Therefore, Hendrina Power Station proposes to extend its ashing facilities and associated infrastructure with the following development specifications:

- Additional airspace of 43.3 million m³
- Wet ash disposal facility ground footprint of 139 ha
- Ground footprint of associated infrastructure such as Ash Water Return Dams, ash water return channels, pump stations, drainage channels, access roads, switchgear room, ash lines of 70 ha

The need for this extension is to allow the Hendrina Power Station to continue ashing in an environmentally responsible way for the duration of the operating life of the Power Station. The need for the extension is related to the deteriorating coal quality, higher load factors, the installation of the Fabric filter plant (to meet requirements in terms of the National Environmental Management: Air Quality Act (Act 39 of 2004)) and the need to extend station life.

Purpose of application:

The purpose of the application is to, on behalf of the applicant – Eskom Holdings SOC Limited, apply for an environmental authorisation for the relevant listed activities under both the National Environmental Management Act (Act 107 of 1998) and the National Environmental Management Waste Act (Act 59 of 2008), as well as to apply for a Waste Management License, due to the fact that the ash disposal facility is deemed a waste disposal facility.

Does the project form part of any of the Strategic Infrastructure Projects (SIPs) as described in the National Development Plan, 2011?

NO

X

If YES, please indicate which SIPs are applicable in **Appendix 2**.

Please note that you may be requested to provide confirmation of SIP applications from the relevant sector representative.

Please indicate which sector the project falls under by crossing out the relevant block in the table below:

Table 1

Green economy + "Green" and energy-saving industries		Greenfield transformation to urban or industrial form (including mining)	
Infrastructure – electricity (generation, transmission & distribution)	X	Biodiversity or sensitive area related activities	
Oil and gas		Mining value chain	
Biofuels		Potential of metal fabrication capital & transport equipment – arising from large public investments	
Nuclear		Boat building	
Basic services (local government) – electricity and electrification		Manufacturing – automotive products and components, and medium and heavy commercial vehicles	
Basic services (local government) – area lighting		Manufacturing – plastics, pharmaceuticals and chemicals	
Infrastructure – transport (ports, rail and road)		Manufacturing – clothing textiles, footwear and leather	
Basic services (local government access roads)		Forestry, paper, pulp and furniture	
Basic services (local government) – public transport		Business process servicing	
Infrastructure – water (bulk and reticulation)		Advanced materials	
Basic services (local government) – sanitation		Aerospace	
Basic services (local government) – waste management		Basic services (local government) - education	
Basic services (local government) water		Basic services (local government) - health	
Agricultural value chain + agro-processing (linked to food security and food pricing imperatives)		Basic services (local government) - housing	
Infrastructure – information and communication technology		Basic services (local government) security of tenure	
Tourism + strengthening linkages between cultural industries and tourism		Other	
Basic services (local government) – public open spaces and recreational facilities			

2. FLOW CHART OF OPERATIONS

Please provide a brief description of the activities and operations at the site. Provide a flow chart of the operation showing all inputs and outputs of the process. Give particulars of the source, location, nature, composition and quantity of emission to the atmosphere, surface water, sewer, and ground-water including noise emissions. Solid waste must be in tons and specify units for liquids and gases.

The coal-fired power generation process results in large quantities of ash, which is disposed of in wet ash disposal facilities. Generally, Eskom has access to coal of a low grade (called middlings coal) which produces a larger mass of ash during combustion. Over time, the quality of the coal provided to Eskom has degraded, due to higher ash quantities in the coal. With regards to ash management, Eskom uses either wet or dry methods of ash disposal. The Hendrina Power Station utilises a wet ashing disposal

method. This process entails the hydraulic conveyance of ash where ash is mixed with water and pumped in the form of slurry via steel pipelines. The slurry is allowed to settle in the wet ash disposal facilities, and the water decanted to storage dams for re-use.

Although wet ashing utilises more water than dry ashing, a large amount of this water is recovered and recycled back to the power station. Wet ashing also produces less dust than the dry ashing alternative.

Due to the fact that Hendrina Power Station utilises a wet ashing disposal method, a strategic recommendation was for the new proposed wet ash disposal facility to be constructed to tie in with the existing ashing system. The costs to retrofit a dry ashing system at Hendrina Power station would be exponentially greater than that of continuing with the existing wet ashing system and it is therefore seen as more economical to continue with a wet ashing process. Therefore, no alternative ash disposal methods were investigated.

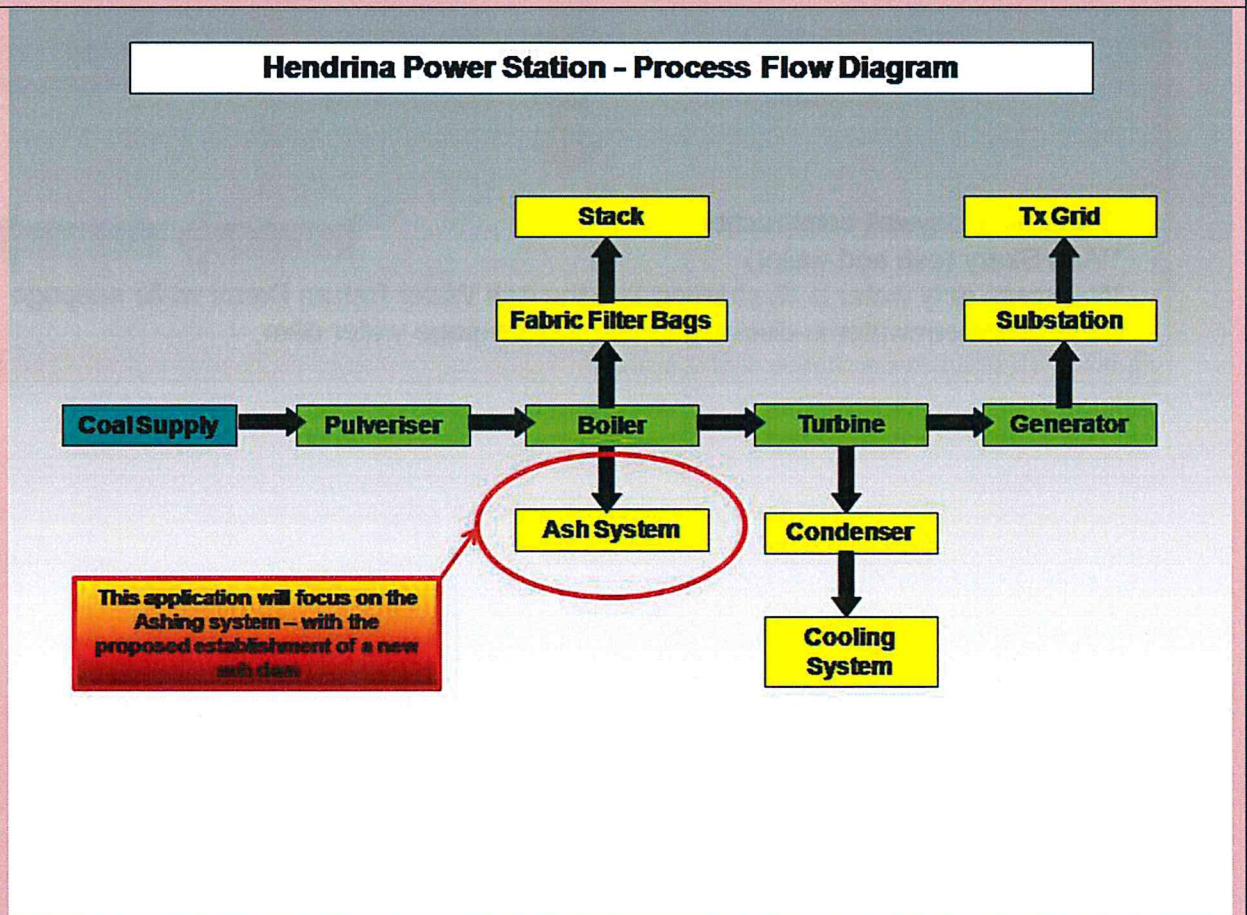
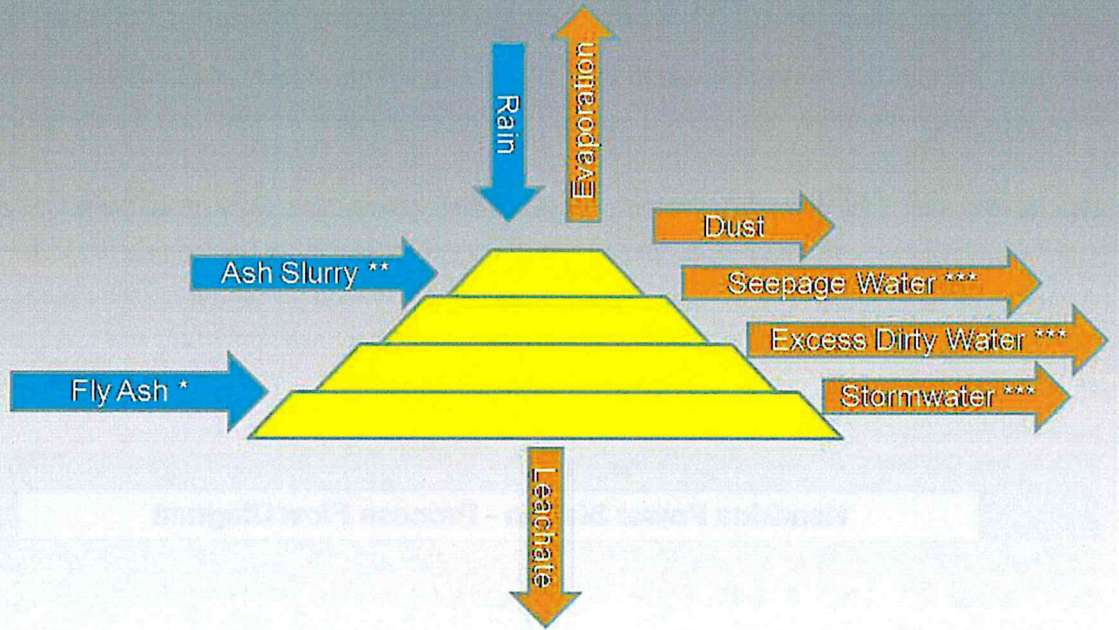


Figure 1: Hendrina Power Station process flow diagram

Hendrina Power Station Ashing System – Simplified Inputs and Outputs Diagram



*Fly ash for daywall construction

**Ash Slurry (ash and water)

*** Excess dirty water is discharged into the Ash Water Return Dams while seepage water and stormwater is discharged into the Seepage water dam

Figure 2: Hendrina Power Station ashing system

3. BACKGROUND INFORMATION

Company Trading name (if any):	Eskom Holdings SOC Limited		
Company Registration no (if any):	2002/015527/06		
Responsible person:	Ms Ntombenhle Mkhize		
Responsible person ID number:			
Responsible position, e.g. Director, CEO, etc.:	Power Station Manager, Hendrina Power Station		
Contact person (if different to responsible person):	Deidre Herbst		
Physical address:	Megawatt Park, Maxwell Drive, Sunninghill, Sandton		
Postal address:	PO Box 1091		
Postal code:	2000	Cell:	083 660 1147
Telephone:	011 800 3501	Fax:	086 660 6092
E-mail:	HerbstDL@eskom.co.za		

Provincial Authority:	Mpumalanga Department of Economic Development, Environment and Tourism		
Contact person:	Ms Thabile Mahlaku / Mr Surgeon Maribane		
Postal address:	P.O. Box 2777, Ermelo		
Postal code:	2351	Cell:	Not Available
Telephone:	017 811 3951 / 4830	Fax:	Not Available
E-mail:	mhlakudelta@mpg.gov.za / stmaribane@mpg.gov.za		

Local municipality:	Steve Tshwete Local Municipality		
Contact person:	Mandla Mnguni (Acting Municipal Manager)		
Postal address:	P O Box 14, Middelberg		
Postal code:	1050	Cell:	Not Available
Telephone:	(013) 249 7263	Fax:	013 243 2550
E-mail:	mmoffice@stlm.gov.za		

In instances where there is more than one landowner, please attach a list of those landowners with their contact details as **Appendix 3**. If the applicant is not the owner or person in control of the land, proof of notice to the landowner or person in control of the land on which the activity is to be undertaken must be submitted in **Appendix 3**.

Ownership of the property (mark only one with an X)

Property owned by applicant (100% Share value) NB: Eskom will purchase and own the land prior to implementation of the project	<input checked="" type="checkbox"/>	Property leased by applicant	
Property owned by applicant (Share value less than 100%)	<input type="checkbox"/>	The property is communal land	

Please note that a complete list of all organs or state and or any other applicable authority with their contact details must be appended to this application as **Appendix 4**.

Identified Competent Authority to consider the application:
Reason(s) in terms of S 24C of NEMA and S 19 of NEMWA

Department of Environmental Affairs
Eskom is a State Owned Company and is responsible for the generation, transmission and distribution of electricity.

4. ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP) INFORMATION

EAP:	Danie Brummer		
Professional affiliation/registration:	Pr.Sci. Nat.		
Contact person (if different from EAP):	Danie Brummer		
Company:	Lidwala Consulting Engineers (SA) (Pty) Ltd		
Physical address:	1121 Hertzog Street, Villieria, Pretoria, 0186		
Postal address:	PO Box 32497, Waverley, Pretoria.		
Postal code:	0135	Cell:	072 674 1084
Telephone:	0861 543 9252	Fax:	086 600 6757
E-mail:	dbrummer@lidwala.com		

If an EAP has not been appointed please ensure that an independent EAP is appointed as stipulated by Regulation 16 of GN R.543, dated June 2010, prior to the commencement of the process.

The declaration of independence and the Curriculum Vitae (indicating the experience with environmental impact assessment and the relevant application processes) of the EAP must also be submitted to the Department.

5.-SITE DESCRIPTION

Provide a detailed description of the site involved in the application.

Province	Mpumalanga
District Municipality	Nkangala District Municipality
Local Municipality	Steve Tshwete Local Municipality
Ward number(s)	(Ward 5)
Nearest town(s)	Hendrina
Farm name(s) and number(s)	<p>The following farms are within the study area for the screening study. The study area covers an area with an 8km radius around the power station. Alternative sites were identified from within this area.</p> <ul style="list-style-type: none"> • ROODEPOORT 151 IS Portion 13, 14, 17, and 18 • PULLENS HOPE 155 IS Portion 2, 3, 5, 6, 8, 9, 12 and Remainder • DRIEFONTEIN 153 IS Portion 1, 4, 6, 7, 8, 9, 10, 11, 22, 23, 24, 25, 29, 30, 37, 38, 41 and Remainder • DRIEPAN 156 IS Portion 1, 2, and 3 • BOSCHMANSKOP 154 IS Portion 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, and 19 • GROOT DRAKENSTEIN 157 IS Portion 1 • ABERDEEN 158 IS Portion 1 • ROODEPOORT 151 IS Portion 1, 2, 3, 5, 8, 9, 10 and Remainder • HENDRINA POWER STATION 162 IS Portion 1, 2, 3, 4, 6, and Remainder • OPTIMUM 554 IS Remainder • DE PAARL 560 IS Remainder • OPTIMUS 480 JS Portion 2, 3, 4 and Remainder • ZEVENFONTEIN 484 JS Remainder • BOTHASHOEK 475 JS Portion 1, 2, 4 and Remainder <p>Preferred alternative in Red</p>
Portion number(s)	As Above

Current land use where the site is situated:

Industrial	<input checked="" type="checkbox"/>	Recreation	<input type="checkbox"/>
Agriculture	<input checked="" type="checkbox"/>	Commercial	<input type="checkbox"/>
Residential	<input type="checkbox"/>	Mining & quarrying	<input checked="" type="checkbox"/>
Forestry	<input type="checkbox"/>	Wilderness areas	<input type="checkbox"/>
Wetlands	<input type="checkbox"/>	Nature area	<input type="checkbox"/>
Open spaces	<input type="checkbox"/>		

Other current land use **Power Generation**.....

Current land-use zoning:

Agricultural

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required?
 Must a building plan be submitted to the local authority?

<input type="checkbox"/>	<input type="checkbox"/>	NO X
<input type="checkbox"/>	<input type="checkbox"/>	NO X

Locality map: An A3 locality map must be attached to this document, as **Appendix 5**. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometers, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.) The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).

4. SITE IDENTIFICATION AND LINKAGE, LOCATION AND LANDUSE

4.1 Please indicate all the Surveyor-general 21 digit site (erf/farm/portion) reference numbers for all sites (including portions of sites) that are part of the application.

The following farms are within the study area for the screening study. The study area covers an area with an 8km radius around the power station. Alternative sites were identified from within this area.

T	0	I	S	0	0	0	0	0	0	0	0	1	5	1	0	0	0	1	3
T	0	I	S	0	0	0	0	0	0	0	0	1	5	1	0	0	0	1	4
T	0	I	S	0	0	0	0	0	0	0	0	1	5	1	0	0	0	1	7
T	0	I	S	0	0	0	0	0	0	0	0	1	5	1	0	0	0	1	8
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	0	0
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	0	1
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	0	4
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	0	6
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	0	8
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	0	9
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	1	0
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	1	1
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	2	2
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	2	3
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	2	4
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	2	5
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	2	9
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	3	0
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	3	7
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	3	8
T	0	I	S	0	0	0	0	0	0	0	0	1	5	3	0	0	0	4	1
T	0	I	S	0	0	0	0	0	0	0	0	1	5	4	0	0	0	0	1
T	0	I	S	0	0	0	0	0	0	0	0	1	5	4	0	0	0	0	3
T	0	I	S	0	0	0	0	0	0	0	0	1	5	4	0	0	0	0	4
T	0	I	S	0	0	0	0	0	0	0	0	1	5	4	0	0	0	0	5
T	0	I	S	0	0	0	0	0	0	0	0	1	5	4	0	0	0	0	6
T	0	I	S	0	0	0	0	0	0	0	0	1	5	4	0	0	0	0	7
T	0	I	S	0	0	0	0	0	0	0	0	1	5	4	0	0	0	0	9
T	0	I	S	0	0	0	0	0	0	0	0	1	5	4	0	0	0	1	0
T	0	I	S	0	0	0	0	0	0	0	0	1	5	4	0	0	0	1	1
T	0	I	S	0	0	0	0	0	0	0	0	1	5	4	0	0	0	1	3
T	0	I	S	0	0	0	0	0	0	0	0	1	5	4	0	0	0	1	4
T	0	I	S	0	0	0	0	0	0	0	0	1	5	4	0	0	0	1	9
T	0	I	S	0	0	0	0	0	0	0	0	1	5	5	0	0	0	0	0
T	0	I	S	0	0	0	0	0	0	0	0	1	5	5	0	0	0	0	2
T	0	I	S	0	0	0	0	0	0	0	0	1	5	5	0	0	0	0	3
T	0	I	S	0	0	0	0	0	0	0	0	1	5	5	0	0	0	0	5
T	0	I	S	0	0	0	0	0	0	0	0	1	5	5	0	0	0	0	6
T	0	I	S	0	0	0	0	0	0	0	0	1	5	5	0	0	0	0	8
T	0	I	S	0	0	0	0	0	0	0	0	1	5	5	0	0	0	0	9
T	0	I	S	0	0	0	0	0	0	0	0	1	5	5	0	0	0	1	2
T	0	I	S	0	0	0	0	0	0	0	0	1	5	6	0	0	0	0	1
T	0	I	S	0	0	0	0	0	0	0	0	1	5	6	0	0	0	0	2
T	0	I	S	0	0	0	0	0	0	0	0	1	5	6	0	0	0	0	3
T	0	I	S	0	0	0	0	0	0	0	0	1	5	7	0	0	0	0	1
T	0	I	S	0	0	0	0	0	0	0	0	1	5	8	0	0	0	0	1
T	0	I	S	0	0	0	0	0	0	0	0	1	5	1	0	0	0	0	0
T	0	I	S	0	0	0	0	0	0	0	0	1	5	1	0	0	0	0	1

T	0	I	S	0	0	0	0	0	0	0	0	0	1	5	1	0	0	0	0	2
T	0	I	S	0	0	0	0	0	0	0	0	0	1	5	1	0	0	0	0	3
T	0	I	S	0	0	0	0	0	0	0	0	0	1	5	1	0	0	0	0	5
T	0	I	S	0	0	0	0	0	0	0	0	0	1	5	1	0	0	0	0	8
T	0	I	S	0	0	0	0	0	0	0	0	0	1	5	1	0	0	0	0	9
T	0	I	S	0	0	0	0	0	0	0	0	0	1	5	1	0	0	0	1	0
T	0	I	S	0	0	0	0	0	0	0	0	0	1	6	2	0	0	0	0	0
T	0	I	S	0	0	0	0	0	0	0	0	0	1	6	2	0	0	0	0	1
T	0	I	S	0	0	0	0	0	0	0	0	0	1	6	2	0	0	0	0	2
T	0	I	S	0	0	0	0	0	0	0	0	0	1	6	2	0	0	0	0	3
T	0	I	S	0	0	0	0	0	0	0	0	0	1	6	2	0	0	0	0	4
T	0	I	S	0	0	0	0	0	0	0	0	0	1	6	2	0	0	0	0	6
T	0	I	S	0	0	0	0	0	0	0	0	0	5	5	4	0	0	0	0	0
T	0	I	S	0	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0
T	0	J	S	0	0	0	0	0	0	0	0	0	4	8	0	0	0	0	0	0
T	0	J	S	0	0	0	0	0	0	0	0	0	4	8	0	0	0	0	0	2
T	0	J	S	0	0	0	0	0	0	0	0	0	4	8	0	0	0	0	0	3
T	0	J	S	0	0	0	0	0	0	0	0	0	4	8	0	0	0	0	0	4
T	0	J	S	0	0	0	0	0	0	0	0	0	4	8	4	0	0	0	0	0
T	0	J	S	0	0	0	0	0	0	0	0	0	4	7	5	0	0	0	0	0
T	0	J	S	0	0	0	0	0	0	0	0	0	4	7	5	0	0	0	0	1
T	0	J	S	0	0	0	0	0	0	0	0	0	4	7	5	0	0	0	0	2
T	0	J	S	0	0	0	0	0	0	0	0	0	4	7	5	0	0	0	0	4
1	2			3			4			5										

LEGEND:

1. Refers to the Surveyor's-General Office
 2. Major Code (Registration Division)
 3. Minor code
 4. Property No (i.e. Farm No./Erf No./Holding Area No./Sheme No.)
 5. Portion Number
- (if there are more than 6, please attach a list with the rest of the numbers)
 (These numbers will be used to link various different applications, authorisations, permits etc. that may be connected to a specific site)

4.2 If the property type is not surveyed, complete the following:

Full name of leader of village, community or tribal authority

Local Authority

Magisterial District

Tribal Authority/Council



Are there any other applications for Environmental Authorisation on the same property?	NO X
If YES, please indicate the following:	
Competent Authority	
Reference Number	
Project Name	
Please provide details of the steps taken to ascertain this information:	

PART C: LISTED ACTIVITIES APPLIED FOR IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND THE ENVIRONMENTAL IMPACT REGULATIONS, 2010

1. ACTIVITIES APPLIED FOR TO BE AUTHORISED

For an application for authorisation that involves more than one listed or specified activity that, together, make up one development proposal, all the listed activities pertaining to this application must be indicated.

Under NEMA Regulations August 2010 the following listed activities apply:

Indicate the number and date of the relevant notice:	Activity No (s) (in terms of the relevant or notice) :	Describe each listed activity as per the detailed project description (and not as per wording of the relevant Government Notice):
No. R. 544 August 2010	9	The construction of facilities or infrastructure exceeding 1000 metres in length for the bulk transportation of water, sewage or storm water (i) with an internal diameter of 0.36 metres or more; or (ii) with a peak throughput of 120 litres per second or more will be applicable for the water reticulation clean/dirty water systems at the ADF.
	10	The construction of facilities or infrastructure for the transmission and distribution of electricity outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV will apply to the infrastructure associated with the ADF.
	11	The construction of infrastructure or structures covering 50 square metres or more where such construction occurs within a watercourse or within 32 metres of a watercourse. The Ash Disposal facility has a footprint of approximately 139 Hectares and will span across several identified wetland areas.
	18	The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil. Topsoil will be removed from the identified wetland areas and the Ash will be disposed in these areas.
	27	The decommissioning of existing facilities or infrastructure, for – (ii) electricity transmission and distribution with a threshold of more than 132kV will apply to the power lines that needs to be re-routed in order to make space for the ADF.
	28	The expansion of or changes to existing facilities for any process or activity where such expansion or changes to will result in the need for a permit or license in terms of national or provincial legislation governing the release of emissions or pollution. The extension of ashing facilities at Hendrina power station will result in amendments to the Atmospheric Emissions Licence and the Water Use Licence, among others.
	37	The expansion of facilities or infrastructure for the bulk transportation of water, sewage or storm water where (a) the facility or infrastructure is expanded by more than 1000 metres in length; or (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more will apply to the water reticulation infrastructure and the system to convey the ash to the facility.
	39	The expansion of canals, channels, bulk storm water outlet structures within a watercourse or within 32 metres of a

		watercourse, measured from the edge of a watercourse. The expansion of the existing infrastructure will take place within the identified wetland areas. Such infrastructure includes channels, canals and dams.
	47	Roads that form part of the service infrastructure around the facility will be expanded to accommodate the expanded facility by more than 1 kilometer.
No. R. 545	6	The construction of facilities or infrastructure for the bulk transportation of dangerous goods in solid form, outside an industrial complex, using funiculars or conveyors with a throughput capacity of more than 50 tons per day will apply to the extension of the ash delivery system to the new area.
	8	The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex. The combined capacity of the power lines that will be rerouted exceed this threshold.
	15	Physical alteration of undeveloped, vacant or derelict land for industrial (the disposal of ash) use, where the total area to be transformed is 20 hectares or more.

Under NEMA Regulations December 2014 the following listed activities apply:

Indicate the number and date of the relevant notice:	Activity No (s) (in terms of the relevant or notice) :	Describe each listed activity as per the detailed project description (and not as per wording of the relevant Government Notice):
No. R. 983 December 2014	9	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; or (ii) with a peak throughput of 120 litres per second or more will be applicable for the water reticulation clean/dirty water systems at the ADF.
	10	The development and related operation of infrastructure exceeding 1000 metres in length for the bulk transportation of waste water will apply to the wet ash transportation to the ADF.
	11	The development of facilities or infrastructure for the transmission and distribution of electricity (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV will be applicable to the re-routing of the power lines that cross the preferred site.
	12	The ADF has a footprint of 138ha and will span across some identified wetlands and will therefore trigger activity 12 (xii)
	19	The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil. Topsoil will be removed from the identified wetland areas and the Ash will be disposed in these areas.
	24	The development of a road where no reserve exists where the road is wider than 8 metres will apply to the access and service roads around the facility,
	28	Industrial developments (the ADF) will apply for the land that was used for agriculture after 1 April 1998 and the development is larger than 1 hectare outside an urban area.
	31(i)	The decommissioning of existing facilities, structures or infrastructure for any development and related operation activity or activities listed in this Notice, Listing Notice 2 of 2014 or Listing Notice 3 of 2014 will apply to the decommissioning of the power lines when they are re-routed.

	34	The expansion of or changes to existing facilities for any process or activity where such expansion or changes to will result in the need for a permit or license in terms of national or provincial legislation governing the release of emissions or pollution. The extension of ashing facilities at Hendrina power station will result in amendments to the Atmospheric Emissions Licence and the Water Use Licence, among others.
	45	The expansion of infrastructure for the bulk transportation of water or storm water where the existing infrastructure (i) has an internal diameter of 0,36 metres or more or (ii) has a peak throughput of 120 litres per second or more; and (a) where the facility or infrastructure is expanded by more than 1000 metres in length; or (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more will apply to the water reticulation infrastructure and the system to convey the ash to the facility.
	48	The expansion of canals, channels, bulk storm water outlet structures within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse. The expansion of the existing infrastructure will take place within the identified wetland areas. Such infrastructure includes channels, canals and dams.
	56	The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre
No. R. 984 December 2014	7	The development and related operation of facilities or infrastructure for the bulk transportation of dangerous goods (i) in solid form, outside an industrial complex, using funiculars or conveyors with a throughput capacity of more than 50 tons per day will be applicable to the transportation of the wet ash to the ADF.
	9	The development of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex. It is envisaged that the combined capacity of the power lines to be rerouted will exceed this threshold.
	15	The clearance of an area of 20 hectares or more of indigenous vegetation will apply to the area that needs to be cleared for the new ADF.

Please note that any authorisation that may result from this application will only cover activities specifically applied for.

2. TYPE OF APPLICATION REQUIRED FOR ABOVE-MENTIONED ACTIVITIES

2.1 Application for Basic Assessment

Is this an application for conducting a basic assessment (as defined in the Regulations)?

NO

Please indicate when the basic assessment report will be submitted:

2.2 Application for Scoping and Environmental Impact Reporting (S&EIR) assessment

Is this an application for S&EIR (as defined in the Regulations)?

YES

Please indicate when the S&EIR Report (including the Plan of Study for EIA) will be submitted:

The S&EIR report will be submitted

YES

after consultation with the competent authority:

PART D: ACTIVITIES APPLIED FOR IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 AND THE ENVIRONMENTAL IMPACT REGULATIONS, 2010

SECTION 1: TYPE OF APPLICATION AND FACILITY:

1.1 Indicate the type of facility/operation and fill in the required sections only

TYPE OF ACTIVITY	MARK	SECTIONS OF THE FORM TO BE FILLED IN
Recycling and/or recovery Facility		All except Section 5
Storage and or transfer Facility		All except Section 5
Treatment facility		All except Section 5
Disposal facility	X	All

1.2 Activities applied for:

An application may be made for more than one listed or specified activity that, together, make up one development proposal. All the listed activities that make up this application must be listed.

Under GN R. 718 the following:

INDICATE THE NO. & DATE OF THE RELEVANT NOTICE:	ACTIVITY NUMBERS (AS LISTED IN THE WASTE MANAGEMENT ACTIVITY LIST) :	DESCRIBE EACH LISTED ACTIVITY (and not as per the wording of the relevant Government Notice):
No. R. 718 July 2009 Category A	19	The expansion of facilities of or changes to existing facilities for any process or activity, which requires an amendment of an existing permit or license. The expansion of the ADF will require changes to the Atmospheric Emissions licence and will require a new WULA.
No. R. 718 July 2009 Category B	1	The storage including the temporary storage of hazardous waste in lagoons will apply to the ash that will be stored at the ADF.
	9	According to NEMWA the Ash is classified as Type 3 hazardous waste and will be disposed of at the ADF.
	11	The construction of facilities for activities listed in Category B of this schedule (not in isolation to associated activity). The ADF and associated infrastructure will be constructed before the disposal processes can take place.

Classification of facility in terms of climatic water balance

Details are provided in the EIR (Appendix C)

Classification of Facility in terms of the type and the quantity of waste received

Type 3 Waste Disposal Facility (Wet Ash Disposal Facility)

1.5 Operational times

PERIOD	FROM	UNTIL
Weekdays	Due to the fact that the facility is supporting a continuous power generation the operation will be continuous (24 hour daily operation).	
Saturdays		
Sunday		
Public holidays		

SECTION 2: WASTE QUANTITIES

2.1 Indicate or specify types of waste and list the estimated quantities expected to be managed daily (should you need more columns, you are advised to add more)

Hazardous waste	Non hazardous waste	Total waste handled (tonnes per day)
Ash	-	Approximately 6 590.56 m ³ per day. This translates to approximately 15 158.28 tons per day (utilising a specific gravity for fly ash of 2.3)

Source of information supplied in the table above Mark with an "X"

Determined from volumes

Determined with weighbridge/scale

Estimated

X

2.2 Recovery, Reuse, Recycling, treatment and disposal quantities:

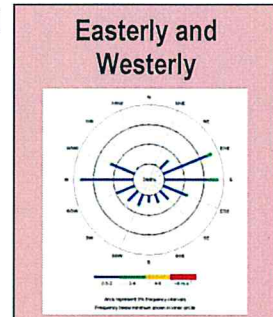
Indicate the applicable waste types and quantities expected to be disposed of and salvaged annually:

TYPES OF WASTE	MAIN SOURCE (NAME OF COMPANY)	QUANTITIES		ON-SITE RECOVERY REUSE RECYCLING TREATMENT OR DISPOSAL	OFFSITE RECOVERY REUSE RECYCLING TREATMENT OR DISPOSAL	OFFSITE DISPOSAL
		TONS/MONTH	M ³ /MONTH	method & location	method location and contractor details	
Ash	Hendrina Power Station		Approximately 200 462.96m ³	On site wet disposal	-	-

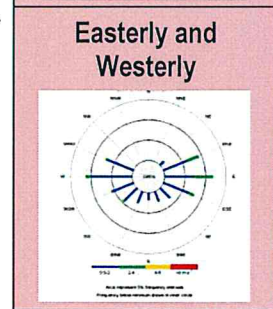
SECTION 3: GENERAL

3.1 Prevailing wind direction (e.g. NWW)

November – April



May - October



3.2 The size of population to be served by the facility

	Mark with "X"	Comment
0-499		The power from the power station will feed into the National grid – National SA. The ash disposal facility will contain ash from the power generation
500-9,999		
10,000-199,999		
200,000 upwards		

3.3 The geological formations underlying the site:

Granite		Quartzite	X
Shale	X	Dolomite	
Sandstone	X	Dolerite	X

Other _____

SECTION 4: COMPETENCE TO OPERATE SITE

It is imperative that the holder of the waste management licence is a fit person in terms of section 59 of the NEMWA (59 of 2008). To assess the holder's competence to operate the site, please disclose the following:

4.1 Legal compliance

Has the applicant ever been found guilty or issued with a non compliance notice in terms of any national environmental management legislation?

Has the applicant's licence in terms of the Waste Act 2008 ever been revoked?

Has the applicant ever been issued with a non compliance notice or letter in terms of any South African Law?

YES/NO	DETAILS
NO	These details have specific reference to Hendrina Power Station
NO	
NO	

NB: Details required above include any information that the applicant wants the Department to take into consideration in determining whether they are a "fit person" and this includes reasons why the offence happened and measures in place to prevent recurrence

4.2 Technical competence

What technical skills are required to operate the site?

How will the applicant ensure and maintain technical competency in the operation of the site?

Eskom contracted an external Pr. Eng to oversee that the wet ash disposal facilities are in good condition and operating as required. Roshcon is also contracted by Eskom to operate the wet ash disposal facilities and supervise all the activities taking place at the wet ash disposal facilities

4.3 Details of applicant's experience and qualification along with that of relevant employees must be summarised as shown in the table below:

Name	Position	Duties And Responsibilities	Qualifications And Experience
Lettie Malaza	A&IRM Manager	Ensures compliance to dust regulations- checking of limits	B.Tech Occupational Health; MBL 22 years' experience
Lethabo Mathobela	Acting Chemical Services Manager	Manages the Ground water monitoring contract, samples and analyses the surface monitoring	N.Diploma Analytical Chemistry B.Tech Quality 15 years' experience
Obed Shongwe	Project Manager	Maintenance & Management	N. Dip. Mech. 26 years' experience
Swelihle Zondi	Senior Mechanical Technician	Maintenance & Supervision	B. Tech. Mechanical 7 years' experience
Nico Barnard	Senior Engineer (PR Eng, BEng (Hons) Civil)	Engineering and dam management	B.Eng (Hons) Civil 30 years' experience

Albert Mabeba	Civil Engineer	Engineering	B.Eng (Civil) 4,5 years' experience
Werner Botha	Ash Plant Engineer	Engineering	B.Eng (Mech) 1 year experience

4.4 Financial Provisions

Provide a plan of estimated expenditure for the following:

	ATTACHED/NOT ATTACHED	SECTION OF THE REPORT WHERE IT IS ATTACHED
Environmental Monitoring Provision and replacement of infrastructure	Ground water monitoring: R3 137 008.00 over a 3-year period Dust monitoring R 300 000 p.a.	Only totals provided by Eskom
Restoration and aftercare	Ash Dam Rehabilitation R2 000 000.00	

SECTION 5: LANDFILL PARAMETERS

5.1 The method of disposal of waste:

Land-building Land-filling Both

The dimensions of the disposal site in metres

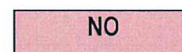
	At commencement	After rehabilitation
Height/Depth	Seeing that the facility will be of irregular shape, simple measurements will be meaningless. The detailed concept designs are included in Appendix C – The Conceptual Design report, indicating all the dimensions	
Length		
Breadth		

5.2 The total volume available for the disposal of waste on the site:

Volume Available	Mark with "X"	Source of information (Determined by surveyor/ Estimated)
Up to 99	<input type="checkbox"/>	
100-34 999		
35 000- 3,5 million		
>3,5 million	<input checked="" type="checkbox"/>	Hendrina Power Station is anticipated to ash approximately 64.2 million m ³ until the end of its life span in 2035 (approximately 24 years) – 20.9 million m ³ of this can be accommodated in the existing ash dam facilities, therefore an additional 43.3 million m ³ storage space is required.

5.3 The total volume already used for waste disposal:

(a) Will the waste body be covered daily



(b) Is sufficient cover material available

YES

(c) Will waste be compacted daily

NO

If the answers (a) and/or (b) are No, what measures will be employed to prevent the problems of burning or smouldering of waste and the generation of nuisance?

Before the ash is stacked the soil in the area of the proposed wet ash disposal facility will be removed to cover the completed ash facility area. The applicable liner will be installed to minimise the chance for seepage. The ash will then be stacked to a certain height. The open ash surfaces will then be covered with thin layer of soil to prevent dust blow off. The working ash surfaces are then moisten by using water sprayers. The final ash disposal facility will be covered with 300 mm thick top soil. This rehabilitated area may then be planted with veld grass.

5.4 The Salvage method

Mark with an "X" the method to be used.

At source

Recycling installation

Formal salvaging

Contractor

No salvaging planned

X

5.5 Fatal Flaws for the site:

Indicate which of the following apply to the facility for a waste management activity:

Within a 3000m radius of the end of an airport landing strip

Within the 1 in 50 year flood line of any watercourse

Within an unstable area (fault zone, seismic zone, dolomitic area, sinkholes)

Within the drainage area or within 5 km of water source

Within an area with shallow and/or visible water table

Within an area adjacent to or above an aquifer

Within an area with shallow bedrock and limited available cover material

Within 100 m of the source of surface water

Within 1km from the wetland

Indicate the distance to the boundary of the nearest residential area

Indicate the distance to the boundary of the industrial area

	NO
YES	
	NO
YES	
YES	
YES	
	NO
YES	
YES	
1000 metres	
100 metres	

5.6 Wettest six months of the year

November- April	X
May -October	

5.7 For the wettest six month period indicated above, indicate the following for the preceding 30 years

	Total rainfall for 6 months	Total A-pan evaporation for 6 months	Climatic water balance
For the 1 st wettest year	940.5	No evaporation data provided	-
For the 2 nd wettest year	797	No evaporation data provided	-
For the 3 rd wettest year	712.8	No evaporation data provided	-
For the 4 th wettest year	594.6	No evaporation data provided	-
For the 5 th wettest year	531.5	No evaporation data provided	-
For the 6 th wettest year	498.5	No evaporation data provided	-
For the 7 th wettest year	440.5	No evaporation data provided	-
For the 8 th wettest year			
For the 9 th wettest year			
For the 10 th wettest year			

5.8 Location and depth of ground water monitoring boreholes:

-Please take note of the following Key:

A = Ashing Area
 B = Boreholes
 C = Coal Stockyard
 D = Dams
 P = Power Station Area

Also – due to information available the depth indicated here is the sample depth and not the actual depth

Codes of boreholes	Borehole locality	Depth (m)	Latitude	Longitude
AB01	SW corner of ash dam 4	26	-26.06410	29.58910
AB03	Below ash water dams E of ash dam 4	25	-26.06690	29.60500
AB05	W entrance to new ash dam 4	9	-26.05540	29.59520
AB06 (DB06)	-	-	-	-

Codes of boreholes	Borehole locality	Depth (m)	Latitude	Longitude
AB07	Final ash water return dams N of ash dams 1 and 2	24	-26.04400	29.60100
AB08	NE corner of ash dams 1 and 2	17	-26.04530	29.61060
AB09	Return Ash Water dam E of ash dams 1 and 2	17	-26.04910	29.60840
AB43	Below workers huts – E of ashing extension (ash dam 5)	15	-26.06280	29.60550
AB44	South of Ash Dam 4 next to road	20	-26.06710	29.59410
AB45	Between workers huts and dam wall	27	-	-
AB53	Pullenshope Station – SW of station building	10	-26.04650	29.60080
AB58	Pullenshope Station - E	15	-26.04560	29.60200
AB89	Between workers huts and dam wall	-	-26.05525	29.60971
AB90	NE Corner of ash dam	deep	-26.06795	29.59724
AB91	NE Corner of ash dam	shallow	-26.06795	29.59724
CB16	Inside fence – E of coal stockpile, next to sump	9	-26.03020	29.60690
CB42	E of Dam D17 in field	15	-26.02910	29.61070
CB47	E of coal stockyard area – outside fence	38	-26.03440	29.60620
CB48	E of coal stockyard, E of railway line	10	-26.03170	29.61380
CB59	SE of Coal stockyard on mine property	15	-26.03950	29.60910
CB60	Between coal stage and Coal stockyard	8	-26.03149	29.60375
CB61	E of railway line and Coal stockyard on mine property	15	-26.03644	29.60655
PB12	N of domestic waste site	34	-26.03400	29.58560
PB13 (DB13)	Downstream from sewage maturation pond	8	-	-
PB14	At oil skimmers & effluent dams	13	-26.03280	29.58930
PB15	Next to gravel road to southern security gate	19	-26.03710	29.59470

Codes of boreholes	Borehole locality	Depth (m)	Latitude	Longitude
PB36	Hand pump SIS farming at workers huts W of domestic waste site	pump	-26.03740	29.57980
PB38	Private dealer S of soccer field	pump	-26.03990	29.59300
PB40	Next to tar road at sleeping quarters	6	-26.03720	29.59020
PB41	E of Borehole PB15 in field	6	-26.03770	29.59550
PB46	-	-	-	-
PB49	Between soccer field and living quarters	16	-26.03740	29.59390
PB50	Borehole downstream and N of dam PD02	6	-26.02710	29.59340
PB51	N of northern cooling towers – on golf course	23	-26.02440	29.60280
PB52	N of coal stockyard area – on golf course	24	-26.02560	29.60770
PB54D	NW of Raw Water Dam	15	-26.03880	29.59870
PB54S	NW of Raw Water Dam	2	-26.03880	29.59870
PB55D	NW of Raw Water Dam	15	-26.03920	29.59760
PB55S	NW of Raw Water Dam	2	-26.03920	29.59760
PB56D	NW of Raw Water Dam	15	-26.04010	29.59870
PB56S	NW of Raw Water Dam	2	-26.04010	29.59870
PB57D	NW of Raw Water Dam	15	-26.03820	29.59150
PB57S	NW of Raw Water Dam	3	-26.03820	29.59150
PB80	Borehole at oil treatment sell at Southern cooling towers. N of Raw Dam	Top	-26.03693	29.60302
PB81	Borehole at oil treatment sell at Southern cooling towers. N of Raw Dam	Top	-26.03876	29.60347
PB82	Borehole at bulk fuel oil tanks	Top	-26.03398	29.60238
PB83	Borehole at bulk fuel oil tanks	Top	-26.03355	29.60226
PB84	Borehole at bulk fuel oil tanks	Top	-26.03372	29.60150
PB85	Borehole at oil treatment sell at Southern cooling towers. N of Raw Dam	Top	-26.03797	29.60410

Codes of boreholes	Borehole locality	Depth (m)	Latitude	Longitude
PB86	Borehole at oil treatment sell at Southern cooling towers. N of Raw Dam	Top	-26.03779	29.60415
PB87	Borehole at oil treatment sell at Southern cooling towers. N of Raw Dam	Top	-26.03650	29.60426
PB88	Downstream from sewage maturation pond. Next to Komati/hendrina road	-	-26.03072	29.58715

5.9 Location and depth of landfill gas monitoring test pit:


Not Applicable – although the Hendrina Power Station does have gas monitoring boreholes - this application is for an ash disposal facility.

Codes of boreholes	Borehole locality	Latitude	Longitude
.....		
.....		

SECTION 6: OTHER AUTHORISATIONS REQUIRED

LEGISLATION	AUTHORISATION REQUIRED	APPLICATION SUBMITTED
SEMA's		
National Environmental Management: Air Quality Act	YES X	NO X
National Environmental Management: Biodiversity Act	NO X	NO X
National Environmental Management: Integrated Coastal Management Act	NO X	NO X
National Environmental Management: Protected Areas Act	NO X	NO X
National legislation		
Mineral Petroleum Development Resources Act	NO X	NO X
National Water Act	YES X	NO X
National Heritage Resources Act	YES X	NO X
Others: Please specify	NO X	NO X

PART E: LIST OF APPENDICES

		SUBMITTED	
Appendix 1	Proof of Payment		NO
Appendix 2	Strategic Infrastructure Projects		N/A
Appendix 3	List of land owners (with contact details) and proof of notification of land owners.		YES
Appendix 4	List of Organs of State and applicable authorities (with contact details)		YES
Appendix 5	Project map		YES
Appendix 6	List of SGIDs		YES
Appendix 7	Project schedule		YES
Appendix 8	Declaration of Applicant		YES
Appendix 9	Declaration of EAP		YES

APPENDIX 1: PROOF OF PAYMENT/MOTIVATION FOR EXCLUSION

APPENDIX 2: STRATEGIC INFRASTRUCTURE PROJECTS

<p>SIP 1: Unlocking the northern mineral belt with Waterberg as the catalyst</p> <ul style="list-style-type: none"> • Unlock mineral resources • Rail, water pipelines, energy generation and transmission infrastructure • Thousands of direct jobs across the areas unlocked • Urban development in Waterberg - first major post-apartheid new urban centre will be a “green” development project • Rail capacity to Mpumalanga and Richards Bay • Shift from road to rail in Mpumalanga • Logistics corridor to connect Mpumalanga and Gauteng. 	
<p>SIP 2: Durban-Free State-Gauteng logistics and industrial corridor</p> <ul style="list-style-type: none"> • Strengthen the logistics and transport corridor between SA’s main industrial hubs • Improve access to Durban’s export and import facilities • Integrate Free State Industrial Strategy activities into the corridor • New port in Durban • Aerotropolis around OR Tambo International Airport. 	
<p>SIP 3: South-Eastern node & corridor development</p> <ul style="list-style-type: none"> • New dam at Mzimvubu with irrigation systems • N2-Wild Coast Highway which improves access into KwaZulu-Natal and national supply chains • Strengthen economic development in Port Elizabeth through a manganese rail capacity from Northern Cape • A manganese sinter (Northern Cape) and smelter (Eastern Cape) • Possible Mthombo refinery (Coega) and transshipment hub at Ngqura and port and rail upgrades to improve industrial capacity and performance of the automotive sector. 	
<p>SIP 4: Unlocking the economic opportunities in North West Province</p> <ul style="list-style-type: none"> • Acceleration of investments in road, rail, bulk water, water treatment and transmission infrastructure • Enabling reliable supply and basic service delivery • Facilitate development of mining, agricultural activities and tourism opportunities • Open up beneficiation opportunities in North West Province. 	

<p>SIP 5: Saldanha-Northern Cape development corridor</p> <ul style="list-style-type: none"> • Integrated rail and port expansion • Back-of-port industrial capacity (including an IDZ) • Strengthening maritime support capacity for oil and gas along African West Coast • Expansion of iron ore mining production and beneficiation. 	
<p>SIP 6: Integrated municipal infrastructure project Develop national capacity to assist the 23 least resourced districts (19 million people) to address all the maintenance backlogs and upgrades required in water, electricity and sanitation bulk infrastructure. The road maintenance programme will enhance service delivery capacity thereby impacting positively on the population.</p>	
<p>SIP 7: Integrated urban space and public transport programme Coordinate planning and implementation of public transport, human settlement, economic and social infrastructure and location decisions into sustainable urban settlements connected by densified transport corridors. This will focus on the 12 largest urban centres of the country, including all the metros in South Africa. Significant work is underway on urban transport integration.</p>	
<p>SIP 8: Green energy in support of the South African economy Support sustainable green energy initiatives on a national scale through a diverse range of clean energy options as envisaged in the Integrated Resource Plan (IRP2010) and support bio-fuel production facilities.</p> <p>Indicate capacity in MW:</p>	
<p>SIP 9: Electricity generation to support socioeconomic development Accelerate the construction of new electricity generation capacity in accordance with the IRP2010 to meet the needs of the economy and address historical imbalances. Monitor implementation of major projects such as new power stations: Medupi, Kusile and Ingula.</p> <p>Indicate capacity in MW:</p>	
<p>SIP 10: Electricity transmission and distribution for all Expand the transmission and distribution network to address historical imbalances, provide access to electricity for all and support economic development. Align the 10-year transmission plan, the services backlog, the national broadband roll-out and the freight rail line development to leverage off regulatory approvals, supply chain and project development capacity.</p>	
<p>SIP 11: Agri-logistics and rural infrastructure Improve investment in agricultural and rural infrastructure that supports expansion of production and employment, small-scale farming and rural development, including facilities for storage (silos, fresh-produce facilities, packing houses); transport links to main networks (rural roads, branch train-line, ports), fencing of farms, irrigation schemes to poor areas, improved R&D on rural issues (including expansion of agricultural colleges), processing facilities (abattoirs, dairy infrastructure), aquaculture incubation schemes and rural tourism infrastructure.</p>	
<p>SIP 12: Revitalisation of public hospitals and other health facilities Build and refurbish hospitals, other public health facilities and revamp 122 nursing colleges. Extensive capital expenditure to prepare the public healthcare system to meet the requirements of the National Health Insurance (NHI) system. The SIP contains major builds for 6 hospitals.</p>	
<p>SIP 13: National school build programme</p>	

<p>A national school build programme driven by uniformity in planning, procurement, contract management and provision of basic services. Replace inappropriate school structures and address basic service backlog and provision of basic services under the Accelerated School Infrastructure Delivery Initiative (ASIDI). In addition, address national backlogs in classrooms, libraries, computer labs and admin buildings. Improving the learning environment will strengthen outcomes especially in rural schools, as well as reduce overcrowding.</p>	
<p>SIP 14: Higher education infrastructure Infrastructure development for higher education, focusing on lecture rooms, student accommodation, libraries and laboratories, as well as ICT connectivity. Development of university towns with a combination of facilities from residence, retail to recreation and transport. Potential to ensure shared infrastructure such as libraries by universities, FETs and other educational institutions. Two new universities will be built - in Northern Cape and Mpumalanga.</p>	
<p>SIP 15: Expanding access to communication technology Provide for broadband coverage to all households by 2020 by establishing core Points of Presence (POPs) in district municipalities, extend new Infracore fibre networks across provinces linking districts, establish POPs and fibre connectivity at local level, and further penetrate the network into deep rural areas. While the private sector will invest in ICT infrastructure for urban and corporate networks, government will co-invest for township and rural access, as well as for e-government, school and health connectivity. The school roll-out focus is initially on the 125 Dinaledi (science and maths-focussed) schools and 1525 district schools. Part of digital access to all South Africans includes TV migration nationally from analogue to digital broadcasting.</p>	
<p>SIP 16: SKA & Meerkat SKA is a global mega-science project, building an advanced radio-telescope facility linked to research infrastructure and high-speed ICT capacity and provides an opportunity for Africa and South Africa to contribute towards global advanced science projects.</p>	
<p>SIP 17: Regional integration for African cooperation and development Participate in mutually beneficial infrastructure projects to unlock long-term socio-economic benefits by partnering with fast growing African economies with projected growth ranging between 3% and 10%. The projects involving transport, water and energy also provide competitively-priced, diversified, short and medium to long-term options for the South African economy where, for example, electricity transmission in Mozambique (Cesul) could assist in providing cheap, clean power in the short-term whilst Grand Inga in the DRC is long-term. All these projects complement the Free Trade Area (FTA) discussions to create a market of 600 million people in South, Central and East Africa.</p>	
<p>SIP 18: Water and sanitation infrastructure A 10-year plan to address the estimated backlog of adequate water to supply 1.4m households and 2.1m households to basic sanitation. The project will involve provision of sustainable supply of water to meet social needs and support economic growth. Projects will provide for new infrastructure, rehabilitation and upgrading of existing infrastructure, as well as improve management of water infrastructure.</p>	

APPENDIX 3: LIST OF LANDOWNERS AND PROOF OF LANDOWNER NOTIFICATION

APPENDIX 4: LIST OF ORGANS OF STATE AND APPLICABLE AUTHORITIES

APPENDIX 5: PROJECT MAP

APPENDIX 6: LIST OF SGIDS

APPENDIX 7: PROJECT SCHEDULE

APPENDIX 8: DECLARATION BY THE APPLICANT

1. The Applicant

I, Deidre Hebest, declare that I -

am, or represent¹, the applicant in this application;

have appointed / will appoint (delete that which is not applicable) an environmental assessment practitioner to act as the independent environmental assessment practitioner for this application / will obtain exemption from the requirement to obtain an environmental assessment practitioner²;

will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;

will be responsible for the costs incurred in complying with the Environmental Impact Assessment

Regulations, 2010, including but not limited to –

- costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
 - costs incurred in respect of the undertaking of any process required in terms of the Regulations;
 - costs in respect of any fee prescribed by the Minister or MEC in respect of the Regulations;
 - costs in respect of specialist reviews, if the competent authority decides to recover costs; and
 - the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;
- will ensure that the environmental assessment practitioner is competent to comply with the requirements of these Regulations and will take reasonable steps to verify whether the EAP complies with the Regulations;
- will inform all registered interested and affected parties of any suspension of the application as well as of any decisions taken by the competent authority in this regard;
- am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;
- hereby indemnify the Government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action which the applicant or environmental assessment practitioner is responsible for in terms of these Regulations;
- will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to obtaining an environmental authorisation or prior to an appeal being decided in terms of these Regulations;
- will perform all other obligations as expected from an applicant in terms of the Regulations;
- all the particulars furnished by me in this form are true and correct; and

¹ If this is signed on behalf of the applicant, proof of such authority from the applicant must be attached.

² If exemption is obtained from appointing an EAP, the responsibilities of an EAP will automatically apply to the person conducting the environmental impact assessment in terms of the Regulations.

I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.



Signature of the applicant³/ Signature on behalf of the applicant:

Eskom Holdings 17.07.2015

Name of company (if applicable):

Date:

Wendrina Ash Facility

³ _____
If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority.

APPENDIX 9: EAP DECLARATION OF INTEREST

The Environmental Assessment Practitioner

I, PD BRUMMER, declare that –

General declaration:

I act as the independent environmental practitioner in this application

I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant

I declare that there are no circumstances that may compromise my objectivity in performing such work;

I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;

I will comply with the Act, regulations and all other applicable legislation;

I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;

I have no, and will not engage in, conflicting interests in the undertaking of the activity;

I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;

I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;

I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;

I will keep a register of all interested and affected parties that participated in a public participation process; and

I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not

all the particulars furnished by me in this form are true and correct;

will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and

I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Disclosure of Vested Interest (delete whichever is not applicable)

I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010;

I have a vested interest in the proposed activity proceeding, such vested interest being:



Signature of the environmental assessment practitioner:

Lidwala Consulting Engineers (SA) (Pty) Ltd

Name of company:

20. 07. 2015

Date:

