WASTE LICENCE APPLICATION FORM

PART 2: APPLICATION FORM FOR NEW LICENCE

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(For official use only)

File Reference Number:	
Date Received:	
Classification:	

WASTE LICENCE APPLICATION FORM
in terms of the National Environmental Management: Waste Act, 2008 (No. 59 of 2008)

SECTION 1: TYPE OF APPLICATION AND FACILITY

Indicate the type of application by marking with a cross and fill in the required sections only

TYPE OF APPLICATION	MARK	SECTIONS OF THE FORM TO BE FILLED IN
A new licence	X	Part 2 and see table of activities below for relevant sections of part 2
A licence amendment		Part 3 and Part 2 only if there are changes to the information or the applicant holds a permit issued in terms of section 20 of ECA (No. 78 of 1989) as amended.
A licence for closure		Part 4, Section 2, 3a, 3b, & 3c. of part 2 of this application form

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	X	All except Section 8
Storage and or transfer Facility		All except Section 8
Treatment facility	X	All except Section 8
Disposal facility		All

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.

NO. & DATE OF THE RELEVANT NOTICE:	ACTIVITY NUMBERS:	DESCRIBE EACH LISTED ACTIVITY:
GN No. 718, 3 July 2009: Category B	*4*	*The biological, physical or physico-chemical treatment of hazardous waste at a facility that has the capacity to receive in excess of 500 kg of hazardous waste per day.*

	5	*The treatment of hazardous waste using any form of treatment regardless of the size or capacity of such a facility to treat such waste.*
	7	*The treatment of effluent, wastewater or sewage with an annual throughput capacity of 15 000 cubic metres or more.*
	11	*The construction of facilities for activities listed in Category B of this Schedule (not in isolation to associated activity).*

NB: Authorisation issued will only cover activities applied for and listed above. Activities added in the middle or after the processing of this authorisation may mean a totally new application.

Application for Category A (equivalent to Basic Assessment)

Is this an application for a basic assessment (as defined in the EIA regulations)?		**NO**
If, YES, is a basic assessment report attached?	YES	NO

If, NO, please indicate when the basic assessment report will be submitted:

Is information required as per Appendix B1 of this form attached?	YES	NO

If, NO, please ensure that it is submitted together with the basic assessment report (BAR)

Application for Category B (equivalent to Scoping and Environmental Impact Assessment (EIA))

Is this an application for Scoping and EIA (as defined in the EIA regulations)?	**YES**	

Please indicate when the Scoping Report and Plan of Study for EIA will be submitted:

The Final Scoping Report, including Plan of Study for EIA was submitted to DEA on 19 April 2010. They were approved by DEA: Waste on 11 May 2010 and by DEA: Integrated Environmental Management on 14 June 2010.

Please ensure that both Appendix B1 and B2 are completed and included in reports The scoping report and/or the plan of study for EIA will be submitted after consultation with the competent authority	**YES**	
A consultation with the competent authority is hereby requested:		**NO**

SECTION 2: SITE IDENTIFICATION, LOCATION AND LANDUSE

Please indicate all the Surveyor-general Cadastral Code 21 digit site (erf/farm/portion) reference numbers:

Farm Pretorius Vlei No. 374, Portions 10 and 11

T0IS 0000 0000 0374 00010
T0IS 0000 0000 0374 00011

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

Full name of leader of village, community or tribal authority	*N/A*
Local Authority	*N/A*
Magisterial District	*N/A*
Tribal Authority/Council	*N/A*

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

Property owned by applicant (100% Share value)	X	**Property leased by applicant**	
Property owned by applicant (Share value less than 100%)		**The property is communal land**	

Size of Site and Classification

Size of facility for a waste management activity	*Pre-treatment plant: ~~500~~ 1 200 m²* *RO plant:~~145~~ 540 m²*
Area where the waste management activity takes place	*Tuluka Power Station (Farm Pretorius Vlei No. 374 Portions 10 and 11)*
Classification of facility in terms of climatic water balance	*N/A.*
Classification of Facility in terms of the type and the quantity of waste received	*N/A.*

Current land-use where the site is situated

Industrial	X	Recreation	
Agriculture		Commercial	
Residential		Mining & quarrying	
Forestry		Wilderness areas	
Wetlands		Nature area	
Open spaces			

Other current land-use: *The site is used for power generation and associated activities.*

	YES/NO	SECTION IN THE REPORTS WHERE RELEVANT AUTHORISATION IS ATTACHED
Is a change of land-use or a consent use application required?	NO	

Must a building plan be submitted to the local authority for approval?	NO	

Geographical coordinates of all external corner points of the site

26°46'28.46" S, 29°20'49.68" E
26°46'27.55" S, 29°20'54.65" E
26°46'35.57" S, 29°20'55.58" E
26°46'35.67" S, 29°20'50.08" E

Site Address

Building Name or Number	*Eskom Tutuka Power Station. Att: Ryno Lacock*		
Street	*Bethal-Standerton Road*		
City/Closest Town	*Standerton*		
Province	*Mpumalanga*		
Local Municipality	*Lekwa Local Municipality*		
District Municipality	*Gert Sibande District Municipality*		
Property Description (Deeds Act or name of farm, town, city or agricultural holding	*Tutuka power station, Portions 10 and 11*		
Postal address	*Private Bag X2016, Standerton*		
Postal code:	*2430*	Cell:	*082 337 6290*
Telephone:	*017 749 5700*	Fax:	*017 749 5736*
E-mail:	*ryno.lacock@eskom.co.za*		

Local authority in whose jurisdiction the proposed activity will fall:	*Lekwa Local Municipality, Att: Mr Kgotso Motloung*		
Contact person:	*Municipal Manager*		
Postal address:	*PO Box 66* *Standerton*		
Postal code:	*2430*	Cell:	
Telephone:	*017 712 9600/9619*	Fax:	*017 712 6808*
E-mail:	*amanda@gov.standerton.co.za*		

SECTION 3: CONTACT INFORMATION

A) Person to contact about application (EAP)

First name & Surname	*Mr Brett Lawson / Miss Louise Corbett*
Company name (if any):	*Aurecon South Africa (Pty) Ltd*

Company Registration/Identity number for individuals	*1977/003711/07*		
Physical address:	*81 Church St*		
	Cape Town		
Postal address:	*PO Box 494*		
	Cape Town		
Postal code:	*8000*	Cell:	*083 457 0557 / 084 014 4893*
Telephone:	*021 481 2509 / 2512*	Fax:	*021 424 5588*
Email Address	*brett.lawson@af.aurecongroup.com / louise.corbett@af.aurecongroup.com*		

B) Person wishing to hold licence

First name & Surname of Applicant	*Mrs Deidre Herbst*		
Company name (if any):	*Eskom Holdings (Pty) Ltd*		
Company Registration/Identity number for individuals	*2002/015527/06*		
Physical address	*Megawatt Park, Maxwell Drive*		
	Sunninghill		
Postal address	*PO Box 1091*		
	Johannesburg		
Postal code:	*2000*	Cell:	*083 660 1147*
Telephone:	*011 800 3501*	Fax:	*011 800 5140*
E-mail:	*Deidre.herbst@eskom.co.za*		

C) Landowner where activity takes place

First name & Surname	*Eskom Tutuka Power Station Att: Mr Ryno Lacock (The applicant is the landowner).*		
Company name (if any):	*Eskom Holdings (Pty) Ltd*		
Company Registration/Identity number for individual(s)	*2002/015527/06*		
Physical address	*Tutuka power station, Portions 10 and 11*		
Postal address	*Private Bag X2016, Standerton*		
	2430	Cell:	*082 337 6290*
Telephone:	*017 749 5700*	Fax:	*017 749 5736*
E-mail:	*ryno.lacock@eskom.co.za*		

Operational times (assuming that this relates to the proposed facilities)

PERIOD	FROM	UNTIL
Weekdays	*00:00*	*24:00*

PERIOD	FROM	UNTIL
Saturdays	*00:00*	*24:00*
Sunday	*00:00*	*24:00*
Public holidays	*00:00*	*24:00*

SECTION 4: PROCESS/ACTIVITY DESCRIPTION

Project Title *Proposed Tutuka Power Station Brine Treatment Works, Mpumalanga*

Project Description

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 Eskom Tutuka Power Station is supplied with coal from the New Denmark Colliery, which is operated by Anglo Coal. The coal is mined via an underground mining process, at depths of approximately 200 m below the surface. During the operation of the mine it was discovered that underground water was filling up the mining areas, making the mine inoperable. Consequently, from 1989 onwards, underground mine water from the New Denmark Colliery, as a result of coal mining activities, was sent to the Tutuka power station for treatment, as the power station had the facility to treat the mine water. This was undertaken as a measure to maintain the coal mining operations and ultimately the operation of the power station, as the mine is contractually obliged to supplying coal to the power station.

The underground water is treated via an RO treatment process at a rate of 22.4 megalitres (Ml)/day (16.4 Ml consists of mine water and 6 Ml consists of cooling water from the power station). The treated water is split into two streams, namely a clean stream and a brine stream (also referred to as the reject stream). The reject stream accounts for some 13.4 % of the water (3.0 Ml of 22.4 Ml per day). Of the 3.0 Ml of reject produced per day, 1.07 Ml is utilised on the ash dump for dust suppression, 0.54 Ml is evaporated in the power station's boilers 1, 2 and 3 and the remaining 0.89 Ml is returned to the mine (see Figure 1). An additional 0.50 Ml/day is further concentrated through an evaporator concentration plant. The condensate (0.36 Ml/day) is returned to the cooling water as make up and the reject (0.14 Ml/day) is utilised of in the fly ash conditioning system.

The volume of reject used for dust suppression currently exceeds the optimal volume for dust suppression. When more wastewater is applied on the ash than what is evaporated, the field capacity is exceeded. This implies a flow of water through the ash which carries pollutants towards the groundwater. Consequently, continued disposal of reject on the ash dump is no longer considered to be a feasible solution, as it has resulted in the generation of leachate, causing groundwater pollution.

The remaining 0.89 Ml of reject, not evaporated or used for dust suppression, is returned to the New Denmark Colliery where it is stored in mined caverns. The 240 m deep caverns used for the storage of reject are located in impermeable rock so that there is less risk of groundwater contamination. The mine holds a Directive for the disposal of the reject in this manner. However, the current storage volume is diminishing. The mine will therefore be applying for a new licence, in terms of NEMWA and DWA, in due course, for the disposal of the reject.

As noted above, reject water is currently used for irrigation of the ash dump for the purposes of dust suppression. The volume of reject used for irrigation (1.07 Ml per day) exceeds the carrying capacity of the ash dump, resulting in the generation of leachate, which has historically been penetrating the groundwater resource, leading to pollution of the resource. Consequently, Eskom proposed to abstract the polluted groundwater, undertake initial removals of metals from the groundwater at the ash dump in a new waste water treatment plant, and then pump the water to the RO plant for further treatment, including reject concentration in the proposed expanded reject concentration plant.

Thus Eskom's original proposal was the expansion of the reject concentration plant and construction of a new groundwater treatment plant at the power station to further concentrate the reject and process the polluted groundwater. The concentrated reject would then be returned to the mine for disposal.

However, in the investigations undertaken after the Scoping Phase the Geohydrology Study undertaken in order to assess the impact of the proposed groundwater treatment works on the pollution plume, found that the pollution plume would not spread should irrigation with reject be halted. It also indicated uncertainty as to whether the abstraction of the entire plume would be possible, based on the varied geology present beneath the ash dump. Based on these findings further investigations on management of the groundwater issues will be undertaken and the best management strategy will be adopted by Eskom. Therefore the groundwater treatment works will no longer form part of the current EIA process. Once the best management strategy with regards to the groundwater pollution plume management has been decided, Eskom will initiate an approval process, as required.

As the implementation of the proposed reject concentration plant would ensure that it would not be necessary to irrigate any of the reject on the ash dump, Eskom wishes to proceed with this component of the project urgently, in order to halt the continuation of the pollution plume. Therefore this Waste Management Licence Application is for the proposed construction of the reject concentration plant at the existing RO plant.

Eskom's Tutuka Power Station proposes to upgrade its RO plant through construction of an additional reject concentration plant, within the power station precinct. The project requires a 3 Ml per day reject concentration plant, adjacent to the existing RO plant. A new pipeline between Tutuka and New Denmark Colliery to transport the concentrated reject back to the colliery for final disposal will be proposed and authorised through the mine's environmental authorisation process. The mine has initiated an EIA process for the disposal of the concentrated reject, as the cavern in which the brine is currently disposed of is only authorised until 31 October 2011.

Figure 1 shows the process flow diagram of the proposed reject treatment and disposal (volumes per day).

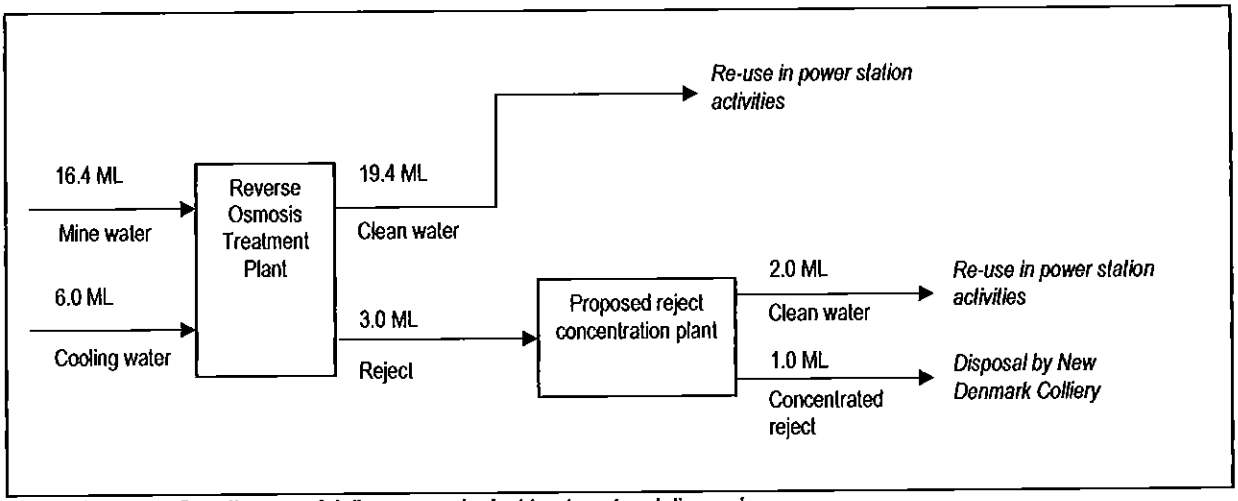

Figure 1 Process flow diagram of daily proposed reject treatment and disposal

As an interim measure, Eskom is also proposing the expansion of a reject evaporation process, which currently takes place in boilers 1, 2 and 3, to boilers 4, 5 and 6. No additional infrastructure would be required for this, only minor modifications to the boilers. This would be an interim measure to reduce the volume of water irrigated on the ash dump and returned to the mine, and the activity would cease once the above infrastructure has been installed and is operational. This proposed expansion process would therefore form the subject of a separate process.

Description of the proposed activity

The proposed reject treatment plant would consist of pre-treatment, filtration and high pressure secondary desalination to achieve maximum recovery of the reject (see **Figure 2**).

The pre-treatment would involve a softening process whereby scale-forming compounds would be removed from the reject to allow

the reject to be processed through the high pressure desalination step. The sludge/precipitate from this process would be discharged to the existing clarifier sludge blowdown sumps at the water treatment plant. The sludge/precipitate consists of carbonates and sulphates. The sludge from the blowdown sumps and RO process collects at the ash conditioner sumps from where it is pumped via the ash conditioner pumps to the ash conditioners to condition the ash to reach a moisture content of approximately 15 %. The conditioned ash is then conveyed on conveyor belts to the ash dump.

Currently 1 255 m³/day softening sludge is used in the ash conditioning sumps, to which the proposed reject concentration plant would add 108 m³/day. No change in capacity would be required to the existing pumps or sumps, nor the pipeline which connects the sumps and pumps. This would reduce the volume of dirty water required to condition the ash. A new pipeline would be required from the proposed pre-treatment plant to the ash conditioner sumps and would be of approximately 80 - 125 m long and 100 mm diameter.

The softened reject would then be neutralized with sulphuric acid and an anti-scalant added. The reject would then be processed through ultrafiltration membranes to remove suspended solids. Provision would be made for cleaning-in-place in order to ensure the membranes remain clean of foulants.

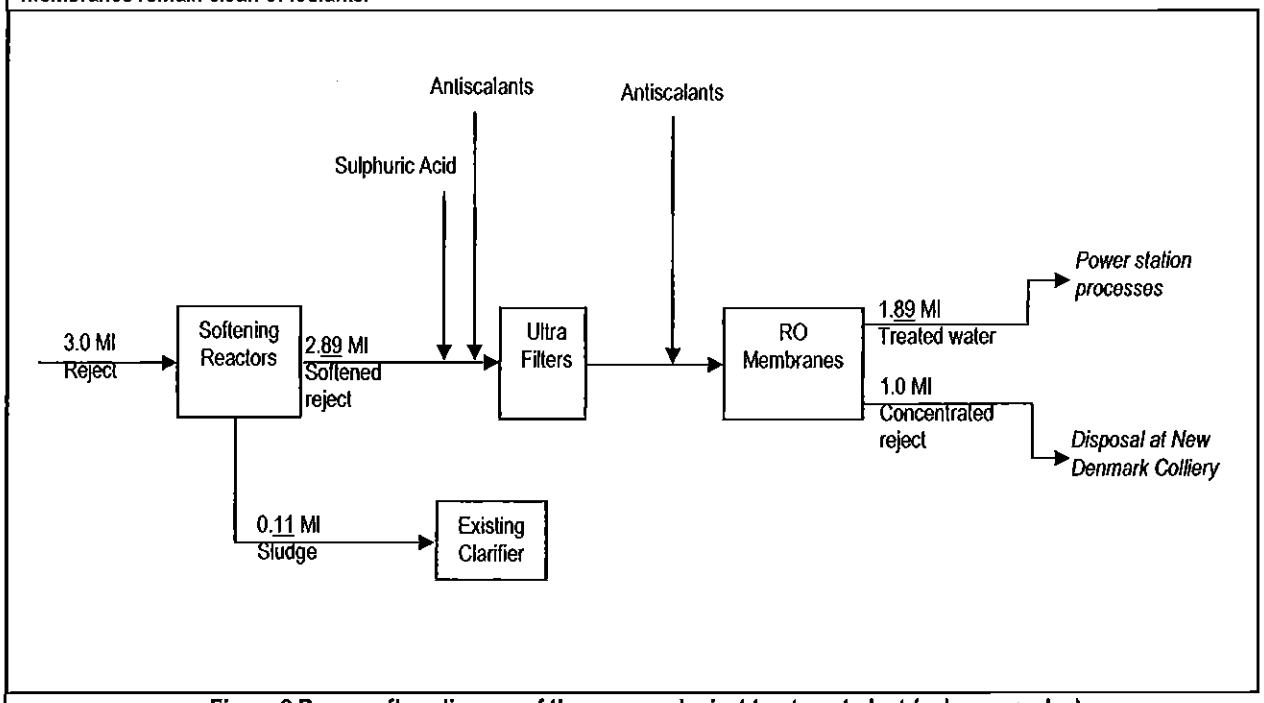

Figure 2 Process flow diagram of the proposed reject treatment plant (volume per day)

The ultrafiltered product would then be dosed with an anti-scalant to limit scaling on the RO membranes. The product would then be processed through RO membranes at high pressure. The RO membranes would be of the high rejection sea water type.

The treated water obtained from this process would be of a good quality and would be used in the power station processes such as for cooling water. The high concentration reject which is produced would be piped to New Denmark Colliery for disposal.

The capacity of the proposed reject concentration plant is as given in **Table 1.**

Table 1 Capacity of the proposed reject concentration plant

Streams	Flow rate
Feed (Reject)	125 m³/hr
Sludge/precipitate	4.5 ~~2.5~~ m³/hr
Treated Water	79.53 ~~80.85~~ m³/hr
Concentrated Reject	40.97 ~~41.65~~ m³/hr

A minimum of 66 % (or 1.89 Ml/day) recovery is expected from the reject concentration plant, but this could increase to as high as

~~85~~ 80 %, dependent on the appointed supplier. A higher recovery rate would result in less concentrated reject and greater recovery of clean water. Continuous on-line analytical equipment would be installed to ensure efficient operation of the process.

An analysis of the reject and the anticipated quality after concentration is given in **Table 2** below.

Table 2. Analysis of reject and anticipated quality of reject after concentration

SAMPLE MARKS	BRINE FEED	BRINE AFTER RO
pH Value @ 19.2°C	7.6	12.6
Conductivity mS/m @ 25°C	1267	696
Total Dissolved Solids	9660	4560
Calcium,Ca	97	2.8
Calcium Hardness as $CaCO_3$	242	7.0
Magnesium, Mg	134	0.1
Magnesium Hardness as $CaCO_3$	552	<0.1
Total Hardness as $CaCO_3$	794	7.4
Sodium,Na	3270	522
Potassium,K	134	16.1
Free and Saline Ammonia, NH_4	<0.1	<0.1
Nitrate,NO_3	183	1.5
Nitrate as N	41	0.3
Fluoride,F	4.3	0.1
Hexavalent Chromium, Cr^{6+}	<0.01	<0.01
Cyanide,CN	<0.01	<0.01
Aluminium, Al	0.543	0.098
Nickel, Ni	0.036	<0.003
Manganese, Mn	0.039	0.002
Iron, Fe	0.185	<0.001
Zinc, Zn	0.452	<0.005
Lead, Pb	<0.01	<0.01
Copper, Cu	0.216	<0.002
Total Chromium, Cr	<0.003	<0.003
Silicon, Si	6.3	0.207
Cadmium, Cd	0.003	0.003
Strontium, Sr	3.4	0.115
Phosphorus as PO_4	1.6	1.0
Barium, Ba	0.203	0.005
Mercury, Hg	<0.001	<0.001

SECTION 5: WASTE QUANTITIES

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)
Brine		3.0 Ml/day

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

Determined from volumes	
Determined with weighbridge/scale	
Estimated	X

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
		T/month	m³/month	method & location	method location and contractor details	
Brine	*New Denmark Colliery*		*Concentrated brine 30 600*	*On site concentration of brine and disposal by New Denmark Colliery*	*New Denmark Colliery*	
			Treated water 59 400	*On site concentration of brine and reuse of treated water on site*	*Eskom*	

SECTION 6: GENERAL

Prevailing wind direction (e.g. NWW)

November – April	*North Easterly and Northerly*
May - October	*Northerly to Easterly, and Westerly to South Westerly*

The size of population to be served by the facility

	Mark with "X"	Comment
0-499 500-9,999	N/A	*The brine concentration plant would serve the power station and the New Denmark Colliery.*

10,000-199,999		
200,000 upwards		

The geological formations underlying the site. [1]

Granite		Quartzite	
Shale	X	Dolomite	
Sandstone	X	Dolerite	X

Other_____

SECTION 7: COMPETENCE TO OPERATE SITE

It is imperative that the holder of the waste 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:

Legal compliance

	YES/NO	DETAILS
Has the applicant ever been found guilty or issued with a non compliance notice in terms of any national environmental management legislation?	No	
Has the applicant's licence in terms of the Waste Act 2008 ever been revoked?	No	
Has the applicant ever been issued with a non compliance notice or letter in terms of any South African Law?	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

Technical competence

What technical skills are required to operate the site?	*The following personnel and technical skills are required:*

[1] *Note that the geological data was taken from the Draft Scoping Report for the Tutuka Waste Disposal Site: Proposed extension of the existing General Waste Disposal Site (and associated infrastructure) at the Tutuka Power Station (November 2009) DEA Ref No.: 12/12/20/1553 compiled by Zitholele Consulting.*

How will the applicant ensure and maintain technical competency in the operation of the site?	• *Eskom currently has qualified and trained operators on site operating the same type of plant. However, should additional staff be required, the following would apply:* • *Eskom shall ensure that the key positions are advertised in a newspaper and filled by competent and suitably qualified people.* • *Eskom shall ensure that all personnel on the site undergo specific waste management training e.g. in the courses highlighted above as well other available waste management courses to ensure continuous professional development CPD.* • *Eskom shall ensure all personnel on site are inducted through the operations manual and specific training prior to commencement of work on the site.* • *Eskom shall ensure that staff are properly trained and qualified to operate the plant.*

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
PM Seabelo	*Chemical Manager*	*Manage the water treatment plant*	*Diploma of Analytical Chemistry*

Financial Provisions

Provide a plan of estimated expenditure for the following:

	ATTACHED/NOT ATTACHED	SECTION OF THE REPORT WHERE IT IS ATTACHED
Environmental Monitoring	*Environmental Monitoring is not required as part of the operational phase.*	*N/A*
Provision and replacement of infrastructure	*New brine concentration plant approximately R275 170 000*	
Restoration and aftercare	*N/A*	

SECTION 8: LANDFILL PARAMETERS

The method of disposal of waste

Land farming ☐ Land filling ☐ Both ☐

The dimensions of the disposal site in metres

	At commencement	After rehabilitation

Height/Depth	
Length	
Breadth	

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		
100-34 999		
35 000- 3,5 million		
>3.5 million		

The total volume already used for waste disposal

This will be provided with the EIA Report

(a) Will the waste body be covered daily	YES	NO
(b) Is sufficient cover material available	YES	NO
(c) Will waste be compacted daily	YES	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?

N/A

The Salvage method

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

At source	
Recycling installation	
Formal salvaging	
Contractor	
No salvaging planned	

Fatal Flaws for the site

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

More detail regarding the information below will be provided with the EIA Report. An initial indication of fatal flaws is provided below.

Within a 3000 m radius of the end of an airport landing strip	YES	NO

Within the 1 in 50 year flood line of any watercourse	YES	NO
Within an unstable area (fault zone, seismic zone, dolomitic area, sinkholes)	YES	NO
Within the drainage area or within 5 km of water source	YES	NO
Within an area with shallow and/or visible water table	YES	NO
Within an area adjacent to or above an aquifer	YES	NO
Within an area with shallow bedrock and limited available cover material	YES	NO
Within 100 m of the source of surface water	YES	NO
Within 1km from the wetland	YES	NO
Indicate the distance to the boundary of the nearest residential area	metres	
Indicate the distance to the boundary of the industrial area		

Wettest six months of the year

November- April	
May -October	

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 1st wettest year			
For the 2nd wettest year			
For the 3rd wettest year			
For the 4th wettest year			
For the 5th wettest year			
For the 6th wettest year			
For the 7th wettest year			
For the 8th wettest year			
For the 9th wettest year			
For the 10th wettest year			

Location and depth of ground water monitoring boreholes

Groundwater monitoring boreholes would only be established after an Environmental Authorisation for the project is received. However, proposed locations for monitoring boreholes will be submitted with the EIA Report.

Codes of boreholes	Borehole locality	Depth (m)	Latitude	Longitude
			° ' "	° ' "

Location and depth of landfill gas monitoring test pit

Landfill gas monitoring test pits would only be established after an Environmental Authorisation for the project is received. However, proposed locations for monitoring pits will be submitted with the EIA Report.

Codes of boreholes	Borehole locality	Latitude	Longitude
		° ' "	° ' "

SECTION 9: DECLARATIONS

The independent Environmental Assessment Practitioner

I, Miss Louise Corbett, declare under oath that I –

- act as the independent environmental assessment practitioner in this application ;
- do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2006;
- have and will not have no vested interest in the proposed activity proceeding;
- have no, and will not engage in, conflicting interests in the undertaking of the activity;
- undertake to disclose, to the competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2006;
- 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;
- 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;
- will keep a register of all interested and affected parties that participated in a public participation process; and
- 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.

Signature of the Environmental Assessment Practitioner:

Aurecon South Africa (Pty) Ltd

Name of company:

20/08/10

Date:

Signature of the Commissioner of Oaths:

Date:

Designation:

Official stamp (Above)

COMMISSIONER OF OATHS
MARIA WILHELMINA OOSTHUIZEN
REF 9/1/8/2 CAPE TOWN (19 MARCH 2008)
61 CHURCH STREET, CAPE TOWN 8001, RSA
Date: 20/8/2010

The Applicant

I, Mrs Deidre Herbst, declare under oath that I -

- Am, or represent, the applicant in this application;
- appointed the environmental assessment practitioner as indicated above to act as the independent environmental assessment practitioner for this application;
- 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, 2006, 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 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;
- 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 for which the applicant or environmental assessment practitioner is responsible in terms of these regulations; and
- will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to an appeal being decided in terms of these regulations.

Signature of Applicant

Eskom

Name of company:

18/08/10

Date:

Signature of the Commissioner of Oaths:

HANDTEKENING VAN VERKLAARDER/SIGNATURE OF DECLARANT

I certify that the deponent has acknowledged that he/she knows and understands the contents of this declaration which was sworn to affirmed before me and the deponent's signature was placed thereon in my presence.

Date:

Designation:

COMMISSIONER OF OATHS / KOMMISSARIS VAN EDE/COMMISSIONER OF OATHS

Volle voorname en van / Full first names and surname (Drukskrif/Block letters)

Ben Maggule

Rank (rang) / Designation (rank) PI

Republiek van Suid-Afrika / Ex Officio Republic of South Africa

Official stamp (Above)

Besigheidsadres / Business address

BESKERMINGSDIENSTE
MOGWATI PARK MAXWELLRYLAAN SANDTON
PRIVATE CIRCLE SERVICES
MAXWELL DRIVE SANDTON

18/08/10 Datum / Date

MMP

APPENDIX: A1

Information needed when applying for scheduled activities listed under Category A, but is not limited thereto:

Basic Assessment Report which must include supplementing documentation such as:

- Description of the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity
- Description of significant environmental impacts, including cumulative impacts, that may occur as a result of the undertaking of the activity
- Conducting public participation as outlined in EIA Regulations
- Waste disposal facility designs
- Closure plan (report)
- Operational plan
- All applicable legislation, policies and/or guidelines
- End-use plan (only apply to site landfill closure)
- Closure/Remedial designs (only apply to the landfill closure)
- Latest external audit report (only apply for permit amendment)
- Application and report documents (four hard copies for all applications)
- A3 size layout plans (four hard copies for all applications)
- Landfill conceptual designs (only apply for construction and decommissioning of landfill sites)
- Geo-hydrological report (only apply to landfill sites, storage facilities and treatment of waste)
- Consideration of alternatives
- Description of mitigation measures and risk assessment
- Any inputs made by specialists to the extent that may be necessary
- Any specific information as may be required by the competent authority

Information needed when applying for scheduled activities listed under Category B, but is not limited thereto:

INFORMATION NEEDED	LOCATION/COMMENT
Description of the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity	*See Chapter 5 of the EIAR*
Description of significant environmental impacts, including cumulative impacts, that may occur as a result of the undertaking of the activity	*See Chapter 5 of the EIAR*
Conducting public participation as outlined in EIA Regulations	*See Chapter 2 of the EIAR*
Closure plan (report)	*N/A*
Operational plan	*This will be compiled at the detailed design phase.*
Waste disposal facility designs	*N/A*
End-use plan (only apply to site closure)	*N/A*
Closure/Remedial designs (only apply to site closure)	*N/A*
Latest external audit report (only apply to permit amendment)	*N/A*
Application and report documents (four hard copies for all applications)	*Provided*
A3 size layout plans (four hard copies for all applications)	*This will be compiled at the detailed design phase.*
Landfill conceptual designs	*N/A*
Geohydrological report (only apply to landfill sites, storage and treatment of waste)	*Annexure A of EIAR*
Consideration of alternatives	*Chapter 3 of the EIAR*
Description of mitigation measures and risk assessment	*See Chapter 5 of the EIAR*
Any inputs made by specialists to the extent that may be necessary	*N/A*
Any specific information as may be required by the competent authority	N/A

Plan of study for environmental impact assessment which must among others include:

INFORMATION NEEDED	LOCATION/COMMENT
Description of the tasks to be undertaken as part of the environmental impact assessment process, including specialist report or specialized processes, and a manner in which such tasks will be undertaken	*Section 5.3 of Scoping Report*
An indication of stages at which the competent authority will be consulted	*Section 5.7 of Scoping Report*
Description of methods for assessing issues and alternatives, including the no-go alternative	*Section 5.3.2 of the Scoping Report*
Particulars of participation process that will be conducted during the EIA process	*Section 5.7 of the Scoping Report*

NB: Compilation of EIA report must be based on tasks outlined in the Plan of Study for EIA, and the below listed reports must also be attached.

INFORMATION NEEDED	LOCATION/COMMENT
Draft environmental management plan (only apply to EIA reports. No draft EMP should be included in the scoping report)	*An Environmental Management Programme is included in Annexure E of the EIAR.*
Copies of any specialist reports and specialized processes (only apply to EIA reports. No copies of specialist studies and specialized processes should be included in the scoping report)	*N/A*

APPENDIX B1

The following MUST be included in the application as supporting documentation and the applicant must indicate specific section(s) where they are appended in the reports.

REQUIRED PIECE OF INFORMATION	SECTION IN THE REPORTS WHERE IT CAN BE FOUND	COMMENTS (If any)
1. Extremely clear Google Earth colour picture of the site (dated not more than a month from the date of the application)	*Annexure A of this application*	
2. 1:50 000 topography /topo-cadastral map of the area showing	*Annexure B of this application*	
2.1 the site and 5km radius	*See Figure 1.1 in the EIAR*	
2.2 Existing residential and industrial areas	*Annexure B of this application*	
2.3 Possible future development (indicate the type of development)		*There is no nearby possible future development*
2.4 Other waste handling sites (existing or closed) in the area		*The proposed plant is located adjacent to the existing RO plant*
2.5 Existing and possible future residential areas.		*There is no nearby residential area (i.e. within 1 km of the site)*
2.6 Sites which are listed as national monuments or archaeological, paleontological and cultural historical sites or objects worthy of conservation;		*There are no nearby sites of heritage importance (i.e. within 1 km of the site)*
3. Security and access aspects of the site		*The power station has controlled access*
4. The site plan drawn to scale showing the site's boundary showing:		*This will be compiled at the detailed design phase*
4.1 Activities or development existing on all 4 directions of the site.	*See Chapter 5 of the EIAR*	*The surrounding areas are all farms, mostly used for cattle farms, and power station infrastructure*
4.2 Waste receipt, storage and handling areas		*N/A- the brine would be disposed of by New Denmark Colliery*
4.3 Impermeable surfaces		*This will be included at the detailed design phase.*
4.4 Sealed drainage systems		*This will be included at the detailed design phase.*
4.5 Drainage system for the site including sumps and discharge		*This will be included at the detailed design phase.*

points		
4.6 Road names and access from all major roads in the area		*Bethal-Standerton Road*
4.7 Land Owner's consent (letter with signature)		*The applicant is the landowner*
5. Waste hierarchy implementation plan		*N/A*
6. Emergency preparedness plan		*This will be compiled should the project be approved*

APPENDIX B2

The following MUST be included in the application documentation for **landfill sites** and the applicant must indicate specific section(s) where they are appended in the reports.

N/A

REQUIRED PIECE OF INFORMATION	SECTION IN THE REPORTS WHERE IT CAN BE FOUND	COMMENTS (If any)
Design for site roads		
The 1 in 50 year flood-line of all watercourses		
Laboratory facilities		
Design and location of fuel storage areas		
Design and location of waste quarantine areas		
Design and location of waste Inspection areas		
Site's drainage system		
Site's emergency control system and plan		
Liner specifications		
Leak detection system and monitoring		
Leachate management plan		
Calculations of leachate generation		
Leachate collection and treatment		
Gas generation and management		
Air quality monitoring and management		
Co-disposal ratio calculation		
Stability monitoring and management		
Daily and intermediate cover requirements		
Temporary and permanent capping requirements		