water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

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LICENCE IN TERMS OF SECTION 40 OF THE NATIONAL WATER ACT, 1998 (ACT NO 36 OF 1998) (THE ACT)

I, ***Sifiso Mkhize***, in my capacity as Director-General (Acting) in the Department of Water and Sanitation and acting under authority of the powers delegated to me by the Minister of Water and Sanitation, hereby authorise the amendment of licence as agreed with the Licensee, of licence No. 01/A42J/4055 dated 18 December 2015 in terms of Section 52 of the Act.

SIGNED: .....

DATE: 31/08/2017

LICENCE NO: 01/A1042/ABCEFGI/5213
FILE NO: 27/2/2/A942/2/1

1.	**Licensee:**	**Eskom Holdings SOC Limited (Medupi Power Station)**
	Postal Address:	P O Box 1091 JOHANNESBURG 2000

2. Water Uses:

2.1.	Section 21(b) of the Act:	Storing water, subject to the conditions set out in Appendices I and II
2.2.	Section 21 (c) of the Act:	Impeding or diverting the flow of water in a watercourse, subject to the conditions set out in Appendices I and III
2.3.	Section 21 (e) of the Act:	Engaging in a controlled activity (irrigation with wastewater or water containing waste), subjects to the conditions set out in Appendices I and IV
2.4.	Section 21(f) of the Act:	Discharging waste or water containing waste into a water resource through a pipe, canal, sewer or other conduit, subject to the conditions set out in Appendices I and V
2.5.	Section 21(g) of the Act:	Disposing of waste in a manner which may detrimentally impact on a water resource, subject to the conditions set out in Appendices I and VI
2.6.	Section 21(i) of the Act:	Changing the bed, banks, course or characteristics of a watercourse, subject to the conditions set out in Appendices I and III

B 07451

3. Properties in respect of which this licence is issued

3.1 Eenzaamheid 687 LQ
3.2 Naawontkomen 509 LQ
3.3 Kuipersbult 511 LQ
3.4 Kroomdraai 690 LQ
3.5 Hanglip 508 LQ
3.6 Grootvallei 515 LQ

4. Registered owner of the Properties

4.2 Eskom Holdings SOC Limited

5. Licence and Review Period

5.1. This licence is valid for a period forty (20) years from the date of issuance, and it may be reviewed at intervals of not more than five (5) years.

6. Definitions

Any terms, words and expressions as defined in the National Water Act, 1998 (Act 36 of 1998) shall bear the same meaning when used in this licence:

"Department"	means the Department of Water and Sanitation;
"Director: Northern Operations"	means the Director: Northern Operations of the National Water Resources Infrastructure Branch in the Department;
"Licensee"	means the legal entity to which this licence is issued, as stipulated in item 1 above;
"Minister"	means Minister of Water and Sanitation;
"NWA"	means the National Water Act, 1998 (Act 36 of 1998), as amended from time to time;
"The Provincial Head"	means the Head of Provincial Operations: Limpopo
"Report"	refers to the reports and documents by Eskom titled Generation Primary Energy (Water): Medupi Power Station Integrated Water Use License Application Technical Report dated September 2007 and Sustainability Division: Medupi Power Station second amendment technical report dated September 2013, SRK consulting Engineers and Scientist Report dated 10 January 2011 (Coal Stock Yard).

7. Description of the activity

This licence authorises Eskom Holdings State Owned Company (SOC) Limited: Medupi Power Station, for section 21 (b), (c), (e) (f), (g), and (i) water uses of the National Water Act, 1998 (Act No. 36 of 1998). The activity is for the production of electricity. Eskom Holdings SOC Limited is authorised in terms of a bulk water use licence to abstract 14,5 Mm^3/a from Mokolo Dam Water scheme in October 2011 for both Medupi and Matimba power stations. The abstracted water for Medupi Power Station is stored into 800 000 m^3 capacity raw water reservoirs from where it is used in the Power Station processes. Lined Pollution Control Dams are erected to contain process effluent and storm water runoff from dirty areas.

APPENDIX I

General conditions for the licence

1. The responsibility for complying with the provisions of the licence is vested in the Licensee and not any other person or body.

2. This licence is subject to all the provisions contained in the National Water Act.

3. Any contravention of or failure to comply with a condition of the Licence constitutes an offence.

4. The Minister and any person authorised by him/her in writing may at any time enter upon the premises of the Licensee to perform the functions contemplated in section 125 (1), (2) and (3) of the said Act

5. Any person who has timeously lodged a written objection against the application for a license may appeal to the Water Tribunal and the Tribunal may confirm, amend or withdraw the licence or make any other order as it deems appropriate.

6. The licence shall not be construed as exempting the Licensee from compliance with the provisions of any other applicable Act, Ordinance, Regulation or By-law.

7. The Licensee shall immediately inform the Provincial Head of any change of name, address, premises and/or legal status.

8. This licence and any amendment to this licence are subject to all the applicable procedural requirements and other applicable provisions of the Act, as amended from time to time.

9. If the properties in respect of which this licence is issued are subdivided, sold or consolidated, the Licensee must provide full details of all changes in respect of the properties to the Provincial Head within forty (40) days of the said change taking place.

10. If a water user association is established in the area to manage the resource, membership of the Licensee to this association is compulsory and rules, regulations and water management stipulations of the association must be adhered to.

11. The Licensee shall be responsible for any water use charges or levies imposed from time to time by a responsible authority or Department in terms of the Raw Water Pricing Strategy, Waste Discharge Charges, Water Resource Management Charge of the Department, or any other water charge or levies that might be imposed in terms of the appropriate legislation.

12. The Licensee must inform the Department at least 90 days before the expiry date of the licence whether the licence must be considered for another term.

13. The Licensee shall be responsible for appointment of a Responsible Person(s) who will give effect to the various licence conditions and to ensure compliance thereof.

14. The Licensee shall conduct an annual internal audit on compliance with the conditions of this licence. A report on the audit must be submitted to the Provincial Head within one month of the finalisation of the audit.

APPENDIX II

Section 21(b) of the Act: Storing water

1. Storage of Water

1.1 The Licensee is authorised to store raw water into reservoirs or dams with the total capacity of 800 000 m^3 which will be used for power station operations.

1.2 The Licensee must have or obtain any proprietary rights or servitudes at his/her own cost.

1.3 The Licensee is not indemnified from any detrimental effect that the dams may have on other properties. The Department does not accept any responsibility or liability for any damages or losses that may be suffered by any other party as a result of the construction and utilisation of the dams.

1.4 No additional water storage facilities can be constructed on the property without prior written consent of the Provincial Head.

2. Monitoring Requirements

2.1. The quantity of water stored must be recorded as at the last day of each month.

3. Construction of Dam(s)

3.1 The as-built plans and specifications of the dams must be kept on site by the Licensee and may be requested when compliance monitoring is conducted by the Department.

APPENDIX III

Section 21 (c) of the Act: Impeding or diverting the flow of water in a watercourse
Section 21 (i) of the Act: Altering the bed, banks, course or characteristics of a watercourse

1. GENERAL

1.1 This licence authorises Medupi Power station for Section 21(c) and (i) water use activities as set out in Table 1 and in the water use licence application reports submitted to the Department or the Provincial Head.

Table 1: Details of section 21(c) & (i) water uses:

Activity	Coordinates:	Property
Raw water pipeline crossing of an unnamed non-perennial water course	S23.712753 E27.524185.	Kuipersbult 511 LQ

2. CONSTRUCTION, OPERATION AND MAINTENANCE

2.1. The Licensee must keep record of a set of as-built drawings (not schematic layouts) onsite and must provide them to the Provincial Head or his/her delegated person upon request.

2.2. The conditions of the authorisation shall be brought to the attention of all persons (employees, sub-consultants, contractors etc.) associated with the undertaking of this activities and the applicant shall take such measures that are necessary to bind such persons to the conditions of this licence.

2.3. Compensation measures for damage to and or mitigation measures must be recommended if avoidance or minimisation of the impacts of the proposed development is not possible or if mitigation measures fail to adequately protect the in-stream and riparian habitat.

2.4. No material with pollution generating potential will be used in any construction activities.

2.5. Necessary erosion prevention mechanisms shall be employed to ensure the sustainability of all structures.

2.6 The Licensee must ensure that Section 21 (c) and (i) water uses structures are not to be damaged excessively by floods exceeding the magnitude of floods occurring on average once in every 50 years.

2.7 Construction activities must be scheduled to take place during the dry seasons when flows are lowest.

2.8 Natural migration of aquatic biota and upstream movement of fish must not be disturbed.

2.9 The Licensee must ensure that the river diversion structure does not negatively impede natural drainage lines.

2.10 Vehicles and other machinery must be serviced well above the 1:100 year flood line or within a horizontal distance of 100 meters from any watercourse. Oils and other potential pollutants must be disposed-off at an appropriate licensed site, with the necessary agreement from the owner of such a site.

2.11 All reagent storage tanks and reaction units must be supplied with a bunded area built to the capacity of the facility and provided with sumps and pumps return the spilled material back into the system.

2.12 The system shall be maintained in a state of good repair and standby pumps must be provided.

2.13 Any hazardous substances must be handled according to the relevant legislation relating to transport, storage and use of the hazardous substance.

2.14 Pollution caused by spills must be prevented through proper maintenance and effective protective measures especially near the non-perennial stream crossing.

2.15 Any access roads or temporary crossings must be:

2.15.1. non-erosive, structurally stable and should not induce any flooding or safety hazard
2.15.2. any damage be repaired immediately to prevent further damage.

3. STORM-WATER MANAGEMENT

3.1 Storm-water shall be diverted from the construction works and roads and shall be managed in such a manner as to disperse runoff and to prevent the concentration of storm-water flow.

3.2 Where necessary works must be constructed to attenuate the velocity of the storm-water discharge and to protect the banks of the watercourse.

3.3 Storm-water control works must be constructed, operated and maintained in a sustainable manner throughout the project.

3.4 Increased runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that storm-water does not lead to bank instability and excessive levels of silt entering the watercourse.

3.5 Storm-water leaving the Licensee's premises must in no way be contaminated by any substance, whether such substance is a solid, liquid, vapour or gas or a combination thereof which is produced, used, stored, dumped or spilled on the premises.

4. WATER QUALITY

4.1 In the event of water flow regime in the water course, the in-stream water quality must be analysed on a monthly basis at the monitoring points for both upstream and downstream of the river/water course diversion or crossing for the following variables: pH, Electrical conductivity (mS/m), suspended solids (mg/l), and total dissolved solids (mg/l).

4.2 Activities (such as maintenance) that lead to elevated levels of turbidity of any watercourse must be minimised.

4.3 In the event of water flow regime in the water course, the Licensee must ensure that the quantity of the water to downstream water users does not decrease because of the existence of the river diversions.

5. GENERAL SPECIFICATIONS

5.1 A suitably qualified person, appointed by the Licensee, and approved, in writing, by the Provincial Head, must be responsible for ensuring that the structures are maintained in line with the design specifications.

5.2 The necessary erosion prevention mechanisms shall be employed to ensure the sustainability of all the structures.

5.3 The Licensee must submit a set of as-built detailed drawings (not schematic layouts) to the Provincial Head of the non-perennial stream crossing upon request.

6. PROTECTIVE MEASURES

6.1 The diversion structures may not restrict river flows by reducing the overall river width or obstructing river flow.

6.2 Operation and storage of equipment within the riparian zone must be limited as far as possible.

6.3 All activities within the riparian zone should be restricted as far as possible.

6.4 Any material removed from the in stream or riparian habitat, may not be stored within the riparian zone, and may not be stored in such a way that will cause damming of water or wash-away.

6.5 Alien vegetation must not be allowed to further colonise the area, and all new alien vegetation recruitment must be eradicated or controlled, using standard methods approved by the Department.

6.6 Soils that have become compacted through the activities of the development must be loosened to an appropriate depth to allow seed germination.

6.7 The proposed development must not impede the upstream movement of fish or any aquatic species.

6.8 Increased runoff due to vegetation clearance and/or soil compaction must be managed and steps must be taken to ensure that storm-water does not lead to bank instability and excessive levels of silt entering the stream.

6.9 All reasonable steps should be made to minimise noise and mechanical vibrations in the vicinity of the river.

7. REHABILITATION

7.1 All disturbed areas must be re-vegetated with an indigenous seed mix in consultation with an indigenous plant expert, ensuring that during rehabilitation only indigenous shrubs, trees and grasses are used in restoring the biodiversity.

7.2 The vegetation of the surrounding catchment should also be managed to prevent erosion and siltation of the water course.

7.3 The Licensee must take steps necessary to allow movement of aquatic species, including migratory species during the rehabilitation programme.

7.4 The Licensee must embark on a systematic long-term rehabilitation programme to restore natural watercourses to environmentally acceptable and sustainable conditions after construction, which shall include, but not be limited to:

7.4.1 The rehabilitation of disturbed and degraded riparian areas to restore and upgrade the riparian habitat integrity to sustain a bio-diverse riparian ecosystem; and

7.4.2 Annually assess the habitat to monitor the sustainability of the diversions and compliance with these conditions. Action must be taken to rectify any negative impacts.

7.5 The Licensee must ensure that the volume of flow is not reduced except for natural evaporative losses and the authorised attenuation volumes.

8. GENERAL SURFACE WATER DESIGN REQUIREMENTS AND CRITERIA

8.1 The Licensee must schedule construction activities at or close to river crossings, streams or wetlands to take place during low flow periods.

8.2 The Licensee must clearly indicate all wetlands boundaries within the project area on layout plans.

8.3 Design and planning of all proposed construction activities adjacent to or in the vicinity of rivers, streams and wetlands shall consider the following measures:

8.3.1 Impact of alignment on springs and wetlands shall be investigated and monitored and ensure their continued functioning.
8.3.2 Where appropriate, large individual indigenous riparian trees shall be avoided during construction and shall be clearly marked on site.
8.3.3 All construction roads in or adjacent to the riparian zone shall be minimised and if required, shall be aligned and managed so as to minimise disturbance of the riparian zone and in-stream habitats.

9. SITE SPECIFIC CONDITIONS

9.1 The Licensee must submit a legible and in colour rehabilitation plans and plant species plans in A1 format upon request by the Provincial Head.

9.2 Should there be blasting on site, blasting and shaping of unsafe Kranzes to 1:3 or flatter must be addressed upon request by the Provincial Head

9.3 Creation of riparian and aquatic habit must be addressed as well as ease movement of aquatic species upon request by the Provincial Head.

9.4 The Licensee must submit the proposal to implement better pollution control measures to the Provincial Head upon request.

9.5 The Licensee must compile a groundwater management plan within six (6) months of the date of issuance of the licence.

9.6 Shaping and rehabilitation on previous rehabilitated areas must be addressed as directed by Provincial Head.

APPENDIX IV

Section 21 (e) of the Act: Engaging in a controlled activity (irrigation with wastewater or water containing waste)

1. QUANTITY OF WATER CONTAINING WASTE FOR IRRIGATION

1.1 This licence authorises irrigation of natural vegetation, and garden lawns with water containing waste of a maximum quantity of three hundred thousand cubic metres (300 000 m^3) per annum.

1.2 The quantity of wastewater referred to in 1.1 above may not be exceeded without written confirmation from the Provincial Head.

2. CROP TYPE AND AREA IRRIGATED

2.1 This licence authorises Eskom Medupi Power Station to irrigate natural vegetation and gardens on a 575 hectares land.

3. QUALITY OF WATER CONTAINING WASTE

3.1 The quality of the water containing waste irrigated should not exceed the limits for Class I of the Water Quality Guidelines of the Department of Water and Sanitation as set out in Table 2.

Table 2: Quality of waste water to be used for irrigation

Variable	Limit
pH	5-6 and 9-9.5
Electrical Conductivity(as EC)	70-150 mS/m
Nitrate (as N)	6-10mg/l
Ammonia (as N)	6-10mg/l
Chemical oxygen demand(as COD)	75 mg/l after removal of algae
Faecal coliform	0-1 counts/100ml
Orthophosphate (as P)	10 mg/l
Suspended solids	25 m/l
Flouride as F	1-1.5 mg/l
Sulphate as SO_4	200-400mg/l
Chloride as Cl	100-200mg/l
Sodium as Na	100-200mg/l
Magnesium as Mg	70-100mg/l
Calcium as Ca	80-150mg/l
Total Dissolved Solids	450-1000mg/l

3.2 The Provincial Head may through a written notice review parameters, units and limits set-out in general limits standards guidelines and regulations above upon reasonable suspicion or scientific finding that impact or pollution is likely to occur or is occurring on the water resources or receiving environment.

4. MONITORING

1.1 The quantity of wastewater to be used for irrigation must be metered and recorded daily.

4.2 Monitoring for the quantity of the water containing waste for irrigation must be done at the inlet and outlet points of the disposal facilities.

4.3 Flow metering, recording and integrating devices must be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than two years. Calibration certificates must always be available for inspection by the Provincial Head or his or her delegate upon request.

4.4 The monitoring points or programme must not be changed without the written approval by the Provincial Head.

4.5 A monitoring programme to determine compliance with ground water reserve on the property or properties affected by irrigation with wastewater must be designed in consultation with the Provincial Head.

5. REPORTING

5.1 The reporting requirements applicable in this annexure must be submitted quarterly to the Provincial Head under reference **27/2/2/A942/3/4** within one (1) month of the close of the period concerned.

6. METHOD OF ANALYSIS

6.1 Water quality laboratory analysis must be carried out in accordance with methods prescribed by and obtainable from South African Bureau of Standards (SABS), in terms of the Standards Act, Act 30 of 1982 or its amendment, regulations or replacement thereof.

6.2 The samples shall be tested in an accredited laboratory.

6.3 The methods of analysis must not be changed without prior notification to and written approval by the Provincial Head.

7. GENERAL IRRIGATION PRACTICES

7.1 Irrigation shall be practised in accordance with the guidelines prescribed in the document titled "*Guide: Permissible Utilisation and Disposal of Treated Sewage Effluent*", issued by the former Department of Health under reference 11/2/5/3 and dated 30 May 1978, or in accordance with any relevant regulations promulgated under section 26 of the Act.

7.2. Irrigation with waste shall be practiced in a systematic manner and precautions shall be taken so as to prevent:

7.2.1 Water logging and pooling of waste in any location;
7.2.2 Pollution of underground water or surface water due to seepage or otherwise;
7.2.3 Fly breeding, public health hazard, odour or secondary pollution;
7.2.4 Runoff from the irrigation area because of wet weather or any other conditions whatsoever; and
7.2.5 The site of the irrigation area shall be adequately fenced to prevent the entry of animals and unauthorised persons.

7.3. The Licensee must take adequate measures to:

7.3.1.1 Provide adequate storage capacity for the total inflow of water containing waste during periods while irrigation cannot be practised, with a freeboard of at least 0,8 metre above the expected maximum water level, which shall be based on the average monthly rainfall figures for the catchment area concerned, less the gross mean evaporation in that area, plus the maximum precipitation to be expected over a period of 24 hours with a frequency of once in 100 years.

7.3.2 Ensure that no irrigation takes place in times of wet weather.

7.3.3 Ensure that if irrigation is carried out by a party other than the Licensee, both the third party and the Licensee shall comply with the Conditions as set out in the licence. The Licensee remains responsible for compliance by the third party.

7.4. A soil monitoring system shall be implemented to monitor the quality of the soil.
7.5. The irrigation practice must be evaluated on a yearly basis by a competent soil scientist appointed by the Licensee to determine the efficient functioning and possible deterioration of soils.

8. PIPELINES

8.1 The pipelines used for the conveyance of waste or waste water must be painted in a conspicuous colour or manufactured of a coloured material distinctly different from the colour of the pipelines in which drinking water is flowing to avoid the possibility of any cross-connections of the different pipelines.

8.2 All stop-valves and taps on the pipelines conveying the effluent must be of a type that can be opened and closed by means of a "lockable mechanism" to prevent unauthorised use thereof

8.3 Notices manufactured of a durable weather-proof material warning against the use of water containing waste for drinking and washing purposes must be displayed at prominent places where the waste is being reused and at all taps. Such notices shall be worded in the official languages applicable in the area.

9. STORM WATER MANAGEMENT

9.1 The Licensee should ensure that all storm water run-off diverted from the site must be received and disposed off in a way that will not negatively impact the quality and total integrity of the receiving water resource.

9.2 The Licensee must construct berms or furrows around the irrigation area are in order to prevent storm water ingress or water containing waste from entering any river, stream or wetland.

9.3 The Licensee must ensure that seepage and runoff from the area under irrigation does not flow beyond the boundaries of the irrigation area.

APPENDIX V

Section 21 (f) of the Act: Discharging waste or water containing waste into a water resource through a pipe, canal, sewer or other conduit.

1. DISCHARGE OF WATER CONTAINING WASTE

1.1. The Licensee is authorised to discharge waste water from the waste water treatment plant of a maximum quantity of sixty two thousand cubic meters per annum (62 000 m^3/a) into the environment.

1.2. The Licensee is also permitted to recover the treated effluent to the clean dam for the purpose of reuse on-site.

2. QUALITY OF WASTE WATER TO BE DISCHARGED

2.1. The quality of waste water discharged into the water course or receiving environment shall not exceed the limits as set out in Discharge limits and conditions set out in the National Water Act, Government Gazette No. 20526, of 8 October 1999 and subsequent amendments.

2.2. The Provincial Head may through a written notice review variables, units and limits referred on 2.1 upon reasonable suspicion or scientific finding that impact or pollution is likely to occur or is occurring on the water course or receiving environment.

3. MONITORING

3.1. Monitoring of the quality of water containing waste must be done on a weekly basis at the point of discharge by taking samples in the case where the water containing waste is discharged into the water course or receiving environment.

3.2. Flow metering, recording and integrating devices shall be used to measure daily quantity when discharging and must be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than two years. Calibration certificates shall be available for inspection by the Provincial Head or his/her representative upon request.

3.3. The quality of waste water being discharged must be analysed, interpreted and reported in line with parameters, units and limits stipulated in Table 3.

3.4. The date, time and monitoring point in respect of each sample taken must be recorded together with the results of the analysis.

3.5. Monitoring points must not be changed prior to notification to and written approval by the Provincial Head.

3.6. Analysis must be carried out in accordance with methods prescribed by and obtainable from the South African National Standards (SANS), in terms of the Standards Act, 1982 (Act 30 of 1982).

3.7. The methods of analysis must not be changed without prior notification to and written approval by the Provincial Head.

4. WATER RESOURCE PROTECTION

4.1. The Licensee maybe directed by the Provincial Head through a written notice to implement additional wastewater treatment process in order to achieve specified water quality effluent limits before discharge into a water course or receiving environment.

5. REPORTING

5.1. The Licensee must update the water balance annually and calculate the loads of waste emanating from the activities. The Licensee must determine the contribution of their activities to the mass balance for the water resource and must furthermore co-operate with other water users in the catchment to determine the mass balance for the water resource reserve compliance point.

5.2 The Licensee must submit the results of analysis for the monitoring requirements to the Provincial Head on a quarterly basis under Reference number **27/2/2/A942/3/4**

6. PLANT AREAS AND CONVEYANCES

6.1. Pollution caused by spills from the conveyances must be prevented through proper maintenance and effective protective measures especially near all streams.

6.2. All reagent storage tanks and reaction units must be supplied with a bunded area built to the capacity of the facility and provided with sumps and pumps to return the spilled material back into the system. The system must be maintained in a state of good repair and standby pumps must be provided.

6.3. Any hazardous substances must be handled according to the relevant legislation relating to the transport, storage and use of the substance.

6.4. Any access roads or temporary crossings must be:

6.4.1. non-erosive, structurally stable must not induce any flooding or safety hazard and

6.4.2. Be repaired immediately to prevent further damage.

APPENDIX VI

Section 21(g) of the act: Disposing of waste in a manner which may detrimentally impact on a water resource.

1. CONSTRUCTION AND OPERATION

1.1. The Licensee must ensure that the disposal of the waste water and the operation and maintenance of the system are done according to the provisions in the Report and as agreed and confirmed by.

1.2. The Licensee shall carry out and complete all the activities, including the construction and operation of the all facilities, according to the Reports and final plans submitted with the Integrated Water Use Licence Application as approved by the Provincial Head.

1.3 The construction of waste water containment facility must be carried out under the supervision of a professional Civil Engineer, registered under the Engineering Profession of South Africa Act, 1990 (Act 114 of 1990), as approved by the designer.

1.4. The Licensee shall use acknowledged methods for sampling and the date, time and sampler must be indicated for each sample.

1.5. Flow metering devices must be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than once in two years. Calibration certificates must be available for inspection by the Provincial Head or his/her representative upon request.

1.6. The waste facilities shall be operated and maintained to have a minimum freeboard of 0.8 metres above full supply level and all other water systems related thereto shall be operated in such a manner that it is at all times capable of handling the 1:50 year flood-event on top of its mean operating level.

1.7. The Licensee shall use the 4-year ashing facility as the best practical environmental option for continued ash waste disposal.

1.8. The Licensee shall continue to use the ash facility for Medupi ash disposal and the geomembrane test results should only be used to inform the closure of the facility after the anticipated 4 years of operational life.

2. DISPOSING OF WASTE / WATER CONTAINING WASTE

2.1. The Licensee is authorised to dispose waste/water containing waste into the facility as set out in Table 3.

Table 3: Waste/water containing waste disposal facilities:

Facility Description	Purpose	Volume/Capacity (m^3)	Co-ordinates
Coal Stockyards, Ash dump, & associated roads	Dust Suppression	120 000 m^3/a	
Pollution control dam (D1)	Disposal of water containing waste	19 200 m^3 capacity	23.712753 27.524185
Pollution control dam (D2)	Disposal of water containing waste	48 700 m^3 Capacity	23.712753 27.524185
Pollution control dam (D2b)	Disposal of water containing waste	45 000 m^3Capacity	23.712753 27.524185
Pollution control dam (D3)	Disposal of water	69 000 m^3Capacity	23.712753

Facility Description	Purpose	Volume/Capacity (m^3)	Co-ordinates
	containing waste		27.524185
Pollution control dam (D3b)	Disposal of water containing waste	69 000 m^3Capacity	23.712753 27.524185
Pollution control dam (D4)	Disposal of water containing waste	69 000 m^3Capacity	23.712753 27.524185
Pollution control dam (D5)	Disposal of water containing waste	30 000 m^3Capacity	23.712753 27.524185
Disposal of Ash (Ash dump)	Ash disposal	21 (g)- 6.3 million tons of Ash per annum	23.712753 27.524185
Temporary storage of ash on the emergency ash dump	Ash storage	21(g) – 0.5 Ha	23.709347 27.558946
Disposal of process effluent (Dirty Stormwater Dam)	Wastewater disposal	21 (g)- 145 000 m^3/a process effluent	23.712753 27.524185
Stormwater runoff (Clean Stormwater Dam)	Stormwater collection	21 (g) – 172 000 m^3/a storm water runoff	23.712753 27.524185
Stormwater runoff (Coal Stock Yard)	Stormwater collection	21 (g)- 74 600 m^3/a storm water runoff	23.712753 27.524185
Disposal of treated effluent (Four Maturation Ponds)	Disposal of wastewater	21 (g) – 6 800 m^3/a treated effluent	23.712753 27.524185

2.2 The Licensee can use the section of the lined ash dump to store coal temporary given that the liner of ash dump is more strengthened than the liner at the coal stock yard. This is in consideration that at initial stages of commissioning the coal stockpile will be relatively more in volume than the ash pile.

2.3 No additional waste water disposal facilities can be constructed on the properties without prior written consent of the Provincial Head or responsible authority.

3. MONITORING

3.1 The Licensee shall monitor groundwater resources quality by taking samples at the monitoring points as directed by the Provincial Head through a written notice after consultation with the Licensee. This consideration is made due to the fact that most facilities are still to be constructed as the construction is still on-going.

3.2 The date, time and monitoring point in respect of each sample taken must be recorded together with the results of the analysis.

3.3 Monitoring points must not be changed prior to notification to and written approval by the Provincial Head.

3.4 Water quality testing should be performed on monitoring boreholes in the proximity of the wastewater containing facilities on a monthly basis in order to determine the risks to the receiving environment. Data gathered in the investigation must be reported quarterly to the Provincial Head. If any water quality levels as specified is exceeded, the Licensee must institute an investigation to determine the cause of poor water quality.

3.5 Water quality testing must be conducted every six (6) months interval on the wastewater dams from the facility when returned back to the industry for re-use as processed water.

Chronic toxicity must be addressed and at least three taxonomic groups must be present when water quality tests are performed.

3.6. Analysis must be carried out in accordance with methods prescribed by and obtainable from the South African National Standards (SANS), in terms of the Standards Act, 1982 (Act 30 of 1982) as amended or reviewed on-going basis. The Provincial Head may in addition prescribe other factors, processes or steps with the purpose of maintaining the quality, relevance or purpose of this analysis.

3.7 The methods of analysis must not be changed without prior notification to and written approval by the Provincial Head.

3.8 If the groundwater is impacted on, the Licensee must ensure that there is water available to the external water users who are directly and negatively affected by such impacts. The Provincial Head may require the Licensee to conduct independent impact studies at the cost of the Licensee.

4. WATER RESOURCE PROTECTION

4.1. The impact of the activities of the power station on the groundwater should not exceed the general standards limits.

4.2 The Provincial Head may through a written notice, review variables, units and limits set-out in Table 6 upon reasonable suspicion or scientific finding that groundwater resource impact or pollution is likely to occur or is occurring.

5. REPORTING

5.1. The Licensee must submit the report of analysis for the monitoring requirements to the Provincial Head on a three (3) months basis under Reference number **27/2/2/A942/2/1.**

6. STORM WATER MANAGEMENT

6.1. Storm water leaving the Licensee's premises must in no way be contaminated by any detectable toxic substance, whether such substance is a solid, liquid, vapour or gas or a combination thereof which is produced, used, stored, dumped or spilled on the premises.

6.2. Increase runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that storm water does not lead to bank instability and excessive levels of silt entering the stream or induce erosion.

6.3. Stormwater runoff arising from dirty areas on the power station sites or facilities must be retained on the site and may not be allowed to drain to any lower lying areas unless permitted in writing by the Provincial Head in the event of unforeseen or extreme event (force majeure).

6.4. Runoff water from areas above the site must be diverted away from the facility property to the environment and may be discharged into a watercourse in an environmentally sound manner.

6.5. Storm-water shall be diverted from the complex site and roads and must be managed in such a manner as to disperse runoff and concentrating the storm-water flow.

6.6. Where necessary works must be constructed to attenuate the velocity of any storm-water discharge and to protect the banks of the affected watercourses or receiving environment.

6.7. Storm-water control works must be constructed, operated and maintained in a sustainable manner throughout the impacted area.

6.8. All storm-water that would naturally run across the pollution areas must be diverted via channels and trapezoidal drains designed to contain the 1:50 year flood.

6.9. Polluted storm water system shall be designed and implemented to provide suitable routing and pumping capacity for contaminated storm water from individual facilities to the respective storm water dams in accordance with the design specifications as contained in the Integrated Water and Waste Management Plan.

6.10. Polluted storm water captured in the storm water control dams or pollution control dams must be pumped to the process plant for re-use and recycling.

7. ACCESS CONTROL

7.1 Strict access procedures must be followed in order to gain access to the properties. Access to the waste water containment facilities must be limited to authorised employees of the Licensee and their Contractors and any other persons empowered by law.

7.2 Notices prohibiting unauthorised persons from entering the areas referred to in condition 7.1 as well as internationally acceptable signs indicating the risks involved in case of an unauthorised entry, must be displayed along the boundary fence or line of these areas.

8. PIPELINES

8.1. Pipelines used for the conveyance of wastewater must be painted in a conspicuous colour or manufactured of a coloured material distinctly different from the colour of the pipelines in which raw or drinking water is flowing to avoid the possibility of any cross-connections of different pipelines.

8.2. Stop-valves and taps on the pipelines conveying the wastewater must be of a type that can be opened and closed by means of a loose wrench or any sound and user-friendly mechanism. This wrench should be in the safekeeping of a responsible member of staff to prevent unauthorized use thereof.

9. CONTINGENCIES

9.1. Accurate and up-to-date records shall be kept of all system malfunctions resulting in non-compliance with the requirements of this licence. The records must be available for inspection by the Provincial Head upon request. Such malfunctions shall be tabulated under the following headings with a full explanation of all the contributory circumstances:

9.1.1.operating errors;
9.1.2.mechanical failures (including design, installation or maintenance);
9.1.3.environmental factors (e.g. flood);
9.1.4.loss of supply services (e.g. power failure); and
9.1.5.other causes.

9.2 The Licensee must, within 24 hours, notify the Provincial Head of the occurrence or potential occurrence of any emergency incident as contemplated in Section 20 of the Act, which has the potential to cause, or has caused water pollution, pollution of the environment, health risks or which is a contravention of the licence conditions.

9.3 The Licensee must, within 14 days, or a shorter period of time, as specified by the Provincial Head, from the occurrence or detection of any incident referred above, submit an

action plan, which must include a detailed time schedule, to the satisfaction of the Provincial Head of measures taken to:

9.3.1.correct the impacts resulting from the incident;
9.3.2. prevent the incident from causing any further impacts; and
9.3.3.prevent a recurrence of a similar incident.

10. INTEGRATED WATER AND WASTE MANAGEMENT

10.1. The Licensee shall adhere to the plans stipulated in the *Integrated Waste Water Management Plan (IWWMP).*

10.2. The IWWMP and Rehabilitation Strategy and Implementation Plan (RSIP) shall thereafter be updated and submitted on a yearly basis from the date of issuance of this licence.

10.3. The Licensee must, at least 180 days prior to the intended closure of any facility, or any Portion thereof, notify the Provincial Head of such intention and submit any final amendments to the IWWMP and RSIP as well as a final *Closure Plan,* for approval.

10.4. The Licensee shall make full financial provision for all investigations, designs, construction, operation and maintenance for a water treatment plant should it become a requirement as a long-term water management strategy.

11 SITE SPECIFIC CONDITIONS

11.1. A proper groundwater remediation and management plan must be set with actions, target dates and responsible officers; it must be submitted to the Department through Provincial Head within six (6) months of issuance of this licence for approval before implementation.

11.2. The Licensee must submit a legible and in colour Rehabilitation Plans and Plant (vegetation) Species Plans within six (6) months of issuance of this licence in relation to waste facilities or negatively impacted areas as maybe directed by the Provincial Head.

11.3 The Licensee must submit an updated groundwater models and updated water balance within six (6) months of this licence issuance and thereafter on annual basis, and in such a format as directed by the Provincial Head.

[END OF LICENCE]

Eskom

Margaret-Ann Diedricks
Director-General
Department of Water and Sanitation
Private Bag X 313
Pretoria
0001

Date:18 July 2016

Enquiries: Rosetta Rammutla

Tel: +27 14 762 6375

Dear Ms Diedricks

REQUEST FOR AMMENDMENT MEDUPI POWER STATION'S WATER USE LICENCE 01/A42J/4055

Eskom Medupi Power Station hereby requests that the consolidated Water Use Licence 01/A42J/4055 issued on 25 April 2016, be amended to incorporate the attached corrections as depicted in Table 1 below.

In addition, Medupi Power Station would like to request extension of the date for submission of information required as per conditions 11.1 and 11.2 under Section 21 (g) water use: [Disposing of waste in a manner which may detrimentally impact on a water resource] to December 2016. Although the licence was signed on 18 December 2015, Medupi Power Station only received it on 25 April 2016, giving less time for the power station to prepare for the information. It is for this reason that the power station is requesting an extension of submission dates.

We trust that the information above is in order and for any further queries, do not hesitate to contact Medupi Power Station Generation Environmental Manager: Ms Rosetta Rammutla.

Yours sincerely

C.J Prinsloo
GENERAL MANAGER: MEDUPI

Generation Division- Coal New Build Unit
Environmental Department (Medupi Power Station)
Steenbokpan Road, Onverwacht
Private Bag X 215, Lephalale 0555 SA
Tel +27 14 762 6375 Fax +27 86 662 2484 www.eskom.co.za

water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Private Bag X313, Pretoria, 0001, Sedibeng Building, 185 Francis Baard Street, Pretoria,
Tel: (012) 336 7500 Fax (012) 336-8664

LICENCE IN TERMS OF CHAPTER 4 OF THE NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998) (THE ACT)

I, ***Sifiso Mkhize***, in my capacity as Director General (Acting) in the Department of Water and Sanitation, and under authority of the powers delegated to me by the Minister of Water and Sanitation, hereby authorise the following water use in respect of this licence.

SIGNED: .....

DATE: 08/11/2017

LICENCE NO: 07/A42H/IIG/6425
FILE NO: 27/2/2/A842/6/5

1.	**Licensee:**	**Eskom Holding Soc Pty(Ltd: Medupi Power Station**
	Postal Address:	P O Box 7502 Lephalale 0557
2.	**Water Use**	
2.1	Section 21(c) of the Act:	Impeding or diverting the flow of water in a water course, subject to the conditions set out in Appendices I and II
2.2	Section 21(i) of the Act:	Altering the bed, banks course or characteristics of a watercourse, subject to the conditions set out in Appendices I and II
2.3	Section 21(g) of the Act:	Disposing of waste in a manner which may detrimentally impact on a water resource, subject to conditions set out in Appendices III

3. Property in respect of which the licence is issued

3.1 Farm Eenzaamheid 687LQ and Naawontkomen 509 LQ

4. Registered owner of the property

B11117

4.1 Eskom Holding SOC Pty (Ltd)

5. Licence and Review Period

5.1 This licence is valid for a period of twenty (20) years from the date of issuance and it may be reviewed at intervals of not more than five(5) years.

6. Definitions

Any terms, words and expressions as defined in the National Water Act, 1998 (Act 36 of 1998) shall bear the same meaning when used in this licence.

"The Provincial Head" means the Head of Provincial Operations: Limpopo, Department of Water and Sanitation, Private Bag X 9506, Polokwane, 0700.

7. Description of the activity

Eskom Holdings Soc Pty (Ltd) has lodged water use licence application for Medupi Power Station in terms of Section 40 of the National Water Act, (Act no 36 of 1998), for the construction of three Pollution Control Dams (PCDs) for coal stockyard at the ash dump site and proceeding with construction of the Ash Disposal Facility (ADF) and associated infrastructures located within the 1km buffer of Sandloop River.

APPENDIX I

GENERAL CONDITIONS FOR THE LICENCE

1. This licence is subject to all applicable provisions of the National Water Act, 1998 (Act 36 of 1998).

2. The responsibility for complying with the provisions of the licence is vested in the Licensee and not any other person or body.

3. The Licensee must immediately inform the Provincial Head of any change of name, address, premises and/or legal status.

4. If the property in respect of which this licence is issued is subdivided or consolidated, the Licensee must provide full details of all changes in respect of the properties to the Provincial Head of the Department within 60 days of the said change taking place.

5. If a water user association is established in the area to manage the resource, membership of the Licensee to this association is compulsory.

6. The Licensee shall be responsible for any water use charges or levies imposed by a Responsible Authority.

7. While effect must be given to the Reserve as determined in terms of the Act, where a desktop determination of the Reserve has been used in issuance of a licence, when a comprehensive determination of the Reserve has finally been made; it shall be given effect to.

8. The licence shall not be construed as exempting the Licensee from compliance with the provisions of any other applicable Act, Ordinance, Regulation or By-law.

9. The licence and amendment of this licence are also subject to all the applicable procedural requirements and other applicable provisions of the Act, as amended from time to time.

10. The Licensee must conduct an annual internal audit on compliance with the conditions of licence. A report on the audit shall be submitted to the Provincial Head within one month of the finalisation of the audit.

11. The Licensee must appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. The first audit must be conducted within 3 (three) months of the date this licence is issued and a report on the audit shall be submitted to the Provincial Head within six(6) months of issuance of this licence.

12. Flow metering, recording and integrating devices must be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than two years. Calibration certificates must be available for inspection by the Provincial Head or his/her representative upon request.

13. Any incident that causes or may cause water pollution must be reported to the Provincial Head or his/her designated representative within 24 hours.

APPENDIX II

Section 21(c) of the Act: **Impeding or diverting the flow of water in a watercourse**

Section 21(i) of the Act: **Altering the bed, banks, course or characteristics of a watercourse**

1.1 General

1. This licence authorises section 21 (c) and (i) water use activities as set out in Table 1 and in the water use licence application reports submitted to the Department of the Responsible Authority.

Table 1. Location and Coordinates of where the water resource is altered

Water use(s)	Purpose	Dimensions of structure	Property Description	Co-ordinates
Section 21(c) and (i)				
Impeding and diverting the flow of a watercourse and altering the bed, banks, course or characteristics of a water of a water course	Construction of an ADF within the buffer zone area of a pan system (depression point)	4200m-length	Eenzaamheid 687LQ	S 23° 42' 19.1" E 27° 32' 22.7'
	Cleaning and dirty dam constructed within 500 m Semi Ephemeral wash and depressions.		Naawontkomen 509 LQ	S 23° 72' 36.8" E 27° 51' 23.5"
	Pollution Control Dams servicing Excess Coal Stockyard phase 1 and 2.		Eenzaamheid 687LQ	S 23° 71' 27.5" E 27° 52' 41.8"
	Raw water pipeline and power island and associated infrastructures.	1000 m-length	Kuipersbult 511 LQ	S 23° 42' 44.20" E 27° 33' 57.96"
	Construction of Pollution Control Dams (PCD 6, 7 and 8) for coal stockyard at the ash dump.		Eenzaamheid 687LQ	S 23° 72' 36.8" E 27° 51' 23.5"
	Coal haulage road	500m-length	Eenzaamheid 687LQ and Naawontkomen 509 LQ	S 23° 71' 27.5" E 27° 51' 41.8"
	Ash dump facility PCD1, PCD2 and PCD2B		Eenzaamheid 687LQ	S 23° 71' 27.55" E 27° 52' 41.85"

1.2 The Licensee shall carry out and complete all the activities according to the following:

1.2.1 Report(s) submitted to the Department or the Responsible Authority
1.2.2 Conditions of this licence and
1.2.3 Any written direction issued by the Provincial Head in relation to this licence

1.3 The conditions of the authorisation shall be brought to the attention of all persons (employees, sub-consultants, contractors etc) associated with undertaking of the activity and the licensee shall take such measures that are necessary to bind such persons to the conditions of this licence.

1.4 A copy of the water use licence must be on site at all times

1.5 A suitably qualified person, appointed by the Licensee and approved in writing by Provincial Head, He/She must be responsible for ensuring that the activities are undertaken in compliance with specifications as set out in reports submitted to the Department or Responsible Authority and the conditions of this licence.

1.6 The Licensee must ensure that the existing boreholes sited and drilled up gradient of the ash disposal facility should always be used for groundwater monitoring.

APPENDIX III

Section 21 (g) of the Act: disposing of waste in a manner which may detrimentally water impact on a water resource.

2. CONSTRUCTION AND OPERATION

2.1 The Licensee must carry out and complete all the activities, including the construction and operation of the facilities indicated in Tables 2 according to the Report and according to the final plans with integrated Water Use Licence Application as approved by the Provincial Head.

Table 2: Geographical Positions of the wastewater management facilities

Water use(s)	Purpose	Capacity/ Volume (m^3, tonnes and/or m^3/annum)	Property Description	Co-ordinates
Section 21(g)				
Disposing of waste in a manner which may detrimentally impact on a water resource	Construction of Pollution Control Dam 6	138 632 m^3/annum	Eenzaamheid 687LQ	S 23° 72' 36.8" E 27° 51' 23.5"
	Construction of Pollution Control Dam 7	151 724 m^3/annum	Eenzaamheid 687LQ	S 23° 72' 36.8" E 27° 51' 23.5"
	Construction of Pollution Control Dam 8	151 724 m^3/annum	Eenzaamheid 687LQ	S 23° 72' 36.8" E 27° 51' 23.5"

3. DISPOSAL OF WASTE OR WATER CONTAINING WASTE

3.1 The quantity of wastewater authorised to be disposed in terms of this licence may not be exceeded without prior authorisation by the Minister or water containing waste into the containment facilities as indicated in Table 2.

3.2 The Licensee shall confirm the barrier system and global stability including laboratory test determining interface shear and materials strength parameters as well compressive creep collapse for the service of the ash facility prior the commencement of activity.

3.3 The licensee must ensure any spills from PCD are reported as incidents.

3.4 The Licensee must confirm the standard specifications for performance of natural and synthetic material and allow for the products equivalent performance prior commencement of the activity.

3.5 The Licensee must ensure that monitoring borehole that can be used for pollution interception should be installed down-gradient of the existing ash disposal facility to minimize the water quality impacts in the boreholes used by other groundwater user.

3.6 The Licensee must ensure that boreholes are sited, drilled and constructed in such that they do not unnecessarily penetrate impermeable layers that could possibly create conduits for the migration of leachate pollution to groundwater.

3.7 The Licensee must ensure that groundwater monitoring boreholes must be properly sealed at the surface to prevent surface pollution into groundwater system.

3.8 The Licensee must ensure groundwater monitoring programme defining the frequency of measurements, parameters to be monitored, database and reporting must be developed and implemented.

3.9 The groundwater quality (including the private borehole if exist adjacent to the existing ash disposal facility) must be monitored by the licensee on a quarterly basis by using approved groundwater sampling techniques and analysed by an accredited laboratory. Undue long-term trends in the quality of water will indicate remediation actions.

3.10 The Licensee must determine if all the parameters after being monitored for a period of two years or less show an increasing trend, or do not comply with standards for drinking water qualities, a groundwater remediation plan must be developed to ensure that corrective measures are implemented.

3.11 All boreholes for groundwater levels to be used for monitoring purposes must be monitored on a quarterly basis.

3.12 The Licensee should construct, calibrate a numerical model and used it adequately to assess the monitoring results and possible impacts detection.

3.13 During the operational phase the Licensee must ensure local aquifers are not artificially recharged by the seepage emanating from the ash disposal facility.

3.14 In the event dewatering deemed to be the best option to intercept contaminated plume, the Licensee should always ensure that the boreholes are not depleted to a level where the static water level reaches the main water strike.

3.15 The Licensee must ensure that dewatering volumes must be recorded and groundwater levels be monitored especially during dewatering to avoid exploitation of groundwater within the area.

3.16 The Licensee must ensure that the contaminated water must be treated to meet the

minimum legal standards and should be rejected(after authorization) back to aquifer system.

3.17 In the event that groundwater users become affected by ash disposal activities due to unacceptable water quality as result of contamination plume migrating and emanating from the ash disposal facility, the community must be compensated with portable water.

3.18 The Licensee must manage groundwater recharge from waste disposal facility and the water level in the facilities be monitored and kept to a minimum level to avoid decant of poor quality water or effluent into the surface resources, and ensure that surface streams do not act as secondary sources of contamination during operational, decommissioning and closure phases.

3.19 Any subsided surface adjacent to the ash disposal facility should be rehabilitated to minimize ingress of surface water in to the ash disposal facility.

4 STORM WATER MANAGEMENT

4.1 Storm water leaving the Licensee's premises shall in no way be contaminated by any substance, whether such substance is a solid, liquid, vapour or gas or a combination thereof which is produced, used, stored, dumped or spilled on the premises.

4.2 Increase runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that storm water does not lead to bank instability and excessive levels of silt entering the stream.

4.3 Where necessary works must be constructed to attenuate the velocity of any storm-water discharge and to protect the banks of the affected watercourses.

4.4 Storm-water control works must be constructed, operated and maintained in a sustainable manner throughout the impacted area.

4.5 Increased runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that storm-water does not lead to bank instability and excessive levels of silt entering the streams.

4.6 The polluted storm water system shall be designed and implemented to provide suitable routing and pumping capacity for contaminated storm water from the associated infrastructure to the respective storm water dam(s) in accordance with the design specifications as contained in the Integrated Water Use Licence Application report.

4.7 An updated stormwater management plan of all associated industrial activities should be implemented within and around the ash disposal facilities.

4.8 The Licensee must protect the side slope of ash, protect and vegetated.

4.9 The Licensee must design a stormwater management channel as natural as possible with rock, topsoil and vegetation.

4.10 All storm-water that would naturally run across the pollution areas shall be diverted via channels and trapezoidal drains designed to contain the 1:50 year flood.

4.11 The clean storm water must be discharged into attenuation structure outside the drainage line and sandloop river

4.12 The Licensee must maintain the hydrological and connectivity along the drainage line

5 ACCESS CONTROL

5.5 Strict access procedures must be followed in order to gain access to the properties.

5.6 Access to the pollution control dam ash disposal facility must be limited to authorised employees of the Licensee and their Contractors only.

5.7 Notices prohibiting unauthorised persons from entering controlled access areas as well as internationally acceptable signs indicating the risks involved in case of an unauthorised entry must be displayed along the boundary fence of these areas.

6 CONTINGENCIES

6.1 Accurate and up-to-date records shall be kept of all system malfunctions resulting in non-compliance with the requirements of this licence. The records shall be available for inspection by the Provincial Head upon request. Such malfunctions shall be tabulated under the following headings with a full explanation of all the contributory circumstances:

6.1.1 operating errors
6.1.2 mechanical failures (including design, installation or maintenance)
6.1.3 environmental factors (e.g. flood)
6.1.4 loss of supply services (e.g. power failure) and
6.1.5 Other causes.

6.2 The Licensee must, within 24 hours, notify the Provincial Head of the occurrence or potential occurrence of any incident which has the potential to cause, or has caused water pollution, pollution of the environment, health risks or which is a contravention of the licence conditions.

6.3 The Licensee must, within 14 days, or a shorter period of time, as specified by the Provincial Head, from the occurrence or detection of any incident referred above, submit an action plan, which must include a detailed time schedule, to the satisfaction of the Provincial Head of measures taken to:

6.3.1 correct the impacts resulting from the incident
6.3.2 prevent the incident from causing any further impacts and
6.3.3 prevent a recurrence of a similar incident.

7 AUDITING

7.1 The Licensee shall conduct an annual internal audit on compliance with conditions of this licence. A report on the audit shall be submitted to the Provincial Head within one month of finalisation of the audit, and shall be made available to an external auditor should the need arise.

8 INTEGRATED WATER AND WASTE MANAGEMENT

8.1 The Licensee must update an Integrated Water and Waste Management Plan (IWWMP), which must together with the updated Water balance be submitted to the Provincial Head for approval within one (1) year from the date of issuance of this licence.

8.2 The IWWMP and water balance shall thereafter be updated and submitted to the Provincial Head for approval, annually.

[END OF LICENCE]

water affairs
Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X313, Pretoria, 0001, Sedibeng Building, 185 Schoeman Street, Pretoria, Tel: (012) 33 7500 Fax (012) 323 4472 / (012) 326 2715

AMENDMENT OF A LICENCE IN TERMS OF SECTION 52 OF THE NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998)

I, **Trevor Balzer**, in my capacity as the Acting Director-General of the Department of Water Affairs, acting under authority of the powers delegated to me by the Minister of Water and Environmental Affairs, do hereby authorise the amendment as agreed with the Licensee, of Licence No 01/A42G/A/743 dated 30 June 2011 in terms of section 52 of the NWA.

SIGNED: .....

DATE: 28/11/2011

The licence is hereby amended to read as follows:

LICENCE NO. 01/A42G/A/743

File No. 27/2/2/A42G

1. **Water User:** Registered Name of Licensee:

   Eskom Holdings SOC Limited

   P.O. Box 1091
   Johannesburg
   2000

2. **Water Use**

   Section 21(a) of the NWA: The taking of raw water from the Mokolo Dam, subject to the conditions set out in Appendices I and II below.

3. **Licence duration and review period**

   This licence is valid for a period of forty (40) years from the date of issuance and it may be reviewed every five (5) years.

4. **Definitions and Interpretation**

   All the terms, words and expressions defined in the National Water Act, 1998 (Act 36 of 1998) shall bear the same meaning when used in this licence. In this licence, unless the context indicates otherwise, the words and expressions shall have the following meanings:

B 03039

"Department"	means the Department of Water Affairs;
"Director: Northern Operations"	means the Director: Northern Operations of the National Water Resources Infrastructure Branch in the Department;
"Licensee"	means the legal entity to which this licence is issued, as stipulated in item 1 above;
"Minister"	means the Minister of Water and Environmental Affairs;
"NWA"	means the National Water Act, 1998 (Act 36 of 1998), as amended from time to time;
"Regional Head"	means the Chief Director: Limpopo Region of the Department; and
"WC/WDM"	means Water Conservation and Water Demand Management, a process prescribed and monitored by the Department.

CONDITIONS TO THIS LICENCE

APPENDIX I

General conditions

1. This licence is subject to all applicable provisions of the National Water Act, 1998 (Act 36 of 1998).

2. The responsibility for complying with the provisions of the licence is vested in the Licensee and not any other person or legal entity.

3. The Licensee must immediately inform the Regional Head of any change of name, address, premises or legal status.

4. While effect must be given to the Reserve as determined in terms of the NWA, where a desktop determination of the Reserve has been used in issuance of a licence, when a comprehensive determination of the Reserve has finally been made, it shall be given effect to.

5. When compulsory licensing is implemented for the water resource in respect of which this licence was issued, the water use authorized in this licence could be subject to appropriate reduction.

6. The licence shall not be construed as exempting the Licensee from compliance with the provisions of any other applicable act, ordinance, regulation or by-law.

7. The licence and amendments to this licence are also subject to all the applicable procedural requirements and other applicable provisions of the NWA, as amended from time to time.

8. The Licensee must conduct an annual internal audit on compliance with the conditions of this licence. A report on the audit must be submitted to the Regional Head within one month of the finalization of the audit.

9. The Licensee shall appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. The first audit must be conducted within 3 (three) months of the date on which this amendment was issued and a report on the audit shall be submitted to the Regional Head within one month of finalisation of the report.

10. Any incident that causes or may cause water pollution shall be reported within 24 hours to the Regional Head or his/her designated representative.

11. The Licensee must establish and implement a continuous process of raising awareness amongst its employees, agents and stakeholders for the need for WC/WDM.

12. The Licensee must apply water conservation measures to meet all requirements in terms of WC/WDM guidelines of the responsible authority, and the Licensee must investigate new and emerging technologies and implement water use efficiency methods and devices where

possible or apply techniques for the re-use of water containing waste, in an endeavour to conserve water at all times.

13. Where necessary, notices prohibiting unauthorised persons from entering certain areas, as well as internationally acceptable signs indicating the risks involved in case of an unauthorised entry must be displayed along the boundary fence(s) of these areas.

APPENDIX II

Conditions specific to section 21(a) of the NWA: Taking water from a water resource

1. Any water use entitlements to the Licensee pertaining to the taking of water in terms of Permit No. 82/144/90 issued on 5 December 1990 to Yskor Beperk, is hereby repealed.

2. The Licensee is hereby authorised to take a maximum volume of **14 500 000 m^3/year** (fourteen million five hundred thousand cubic metres per year) of raw water from Mokolo Dam. The abstraction point is located at S 23° 58' 55" and E 27° 43' 13" in the A42G quaternary catchment in the Limpopo Water Management Area.

3. The Licensee must continue with its existing arrangement to supply a maximum volume of 600 000 m^3/year (six hundred thousand cubic metres per year) of water to the Marapong Township until Lephalale Municipality has received a licence for the taking of raw water from Mokolo Dam. This volume does not form part of the authorisation in condition 2 above.

4. The volume of water referred to in condition 2 above may only be utilised by the Licensee and only for the purpose of power generation activities and matters directly incidental thereto, at its Medupi and Matimba Power Stations.

5. Detailed arrangements for daily and long term water supply operation in terms of the abstraction rates and periods of abstraction from Mokolo Dam should be made with the Director: Northern Operations, or designated representative on a continuous basis, and are subject to his/her prior written approval.

6. The Licensee must install and maintain, monitor and record appropriate water measuring devices to measure the volumes of water abstracted from Mokolo Dam at least complying with the standards of the Department.

7. The Licensee must keep record of all water taken and a copy of such records must be forwarded to the Regional Head at the required intervals.

8. The Licensee must take notice of the fact that water restrictions may be imposed by the responsible authority on the water use of the Licensee as provided for in section 6 of Schedule 3 of the NWA if it believes that a water shortage exist or may occur in the area supplied by the Mokolo Dam, taking into account the resulting impact on the Licensee.

9. The Licensee must pay all water use charges or levies imposed from time to time by a responsible authority in terms of the Pricing Strategy for Raw Water Use Charges, Waste Discharge Charges and Water Resource Management Charge of the Department, or any other water use charges as per water supply agreements or levies that might be imposed in terms of appropriate legislation.

10. The Minister may for good reason change the water resource from which water is made available to the Licensee. The Licensee must further note that the Minister does not guarantee the quality of the water provided and the Licensee must make provision for this aspect in its operations.

11. The Licensee must at its own cost provide for sufficient storage capacity, duly authorised beforehand in terms of the NWA, and maintain it, with a minimum live storage of 18 days of its average annual daily volume of water as authorised in this licence. This storage may only be utilised for emergencies and extended planned maintenance on the bulk water supply system.

12. Additional licence(s) for any other water uses by the Licensee, as defined in section 21 of the NWA must be applied for in good time by the Licensee in order to be considered by the Minister, and only if approved, commencement of the specific other use(s) will be lawful. The unlawful commencement of any water uses by the Licensee may result in this licence being suspended or withdrawn as provided for in the NWA.

13. If a water user association does exist or is established in terms of the NWA to manage water from the relevant water resource from which the Licensee receives or may receive water, membership of the Licensee to this association may be made compulsory by the responsible authority.

14. The Minister accepts no liability for any damage, loss or inconvenience, of whatever nature, suffered as a result of:
    - 14.1 shortage of water;
    - 14.2 inundation, flooding or other *force majeure* event;
    - 14.3 siltation or the quality of the water in the water resource; and
    - 14.4 the required Reserve releases.

15. When a hydrodynamic surface and groundwater model is implemented downstream of the Mokolo Dam in order to optimise the operation of this dam and to assess the implications of flow releases to the lower Mokolo River, the Licensee must actively participate in such programme.

[END OF LICENCE]