Eskom

KUSILE POWER STATION

Environmental Record of Decision (ROD)

Part 3

Annexure X.11

Rev 4_0121

No.	Document Description.	No of Pages
1.	Record of Decision dated 05 June 2007	17
2.	Appeal of Decision dated 17 March 2008	21

environment & tourism
Department:
Environmental Affairs and Tourism
REPUBLIC OF SOUTH AFRICA

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Attention: **Ms Deirdre Herbst**
Eskom Holdings Limited: Generation Division
PO Box 1091
Johannesburg
2000

Tel: 011 800-3501
Fax: 011 800-5140

Dear Ms Herbst

RECORD OF DECISION FOR THE CONSTRUCTION OF THE ESKOM GENERATIOIN *PROPOPSED 5400MW COAL-FIRED POWER STATION, WITBANK*

Your application for authorization, in terms of section 22 of the Environment Conservation Act, 1989 (Act No. 73 of 1989) in respect of an activity identified in terms of section 21 of the said Act, regarding the above matter refers.

By virtue of the power delegated to me in terms of section 33(1) of the Environment Conservation Act, 1989 (Act No. 73 of 1989) I hereby, in terms of section 22(3) of the Act, authorize:

The construction of a 5400MW coal-fired power station with ancillary uses on the Farm Hartbeesfontein 537 JR and the Farm Klipfontein 566 JR.

Enclosed please find the record of decision and the conditions under which your application is authorized.

In terms of Section 35 of the Environment Conservation Act, 1989 (Act No. 73 of 1989) and regulation 11 of Government Notice No. R.1183 of 5 September 1997, appeals on the record of decision can be lodged with:

The Minister of Environmental Affairs and Tourism
Private Bag X447
Pretoria
0001

Fax: (012) 322 0082

Muhasho wa zwa Vhupo na Vhuendelamashango • LiTiko le Tesimondzawo ne:ekuVakasha • Iseibe lemiCimbi yokusiNgqongileyo noKhenkstho Ndzawulo ya Tinhaka & Mbango • Departement: Omgewingsake en Toerisme • Lefapha la Tikoloho le Bohahlaudi • Lefapha la Bojanala Kgoro ya Tikologo le Boeti • UmNyango wezeBhuduluko nokuVakatjha • Umnyango Wezemvelo Nokuvakasha

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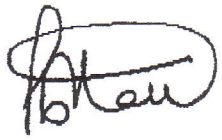
Appeals must comply with the provisions of regulation 11 of the Environmental Impact Assessment regulations, (Government Notice No. R. 1183 of 5 September 1997), which reads as follows:

(1) An appeal to the Minister or the provincial authority under section 35(3) of the act must be done in writing within 30 days from the date on which the record of decision was issued to the applicant in terms of regulation 10(1);

(2) An appeal must set out all the facts as well as the grounds of appeal, and must be accompanied by all relevant documents or copies of them, which are certified as true by a commissioner of oaths.

(3) An appeal questionnaire may be used in the lodging of an appeal. It is obtainable from the department's offices at tel. (012) 310 3590 or e-mail: cveeden@deat.gov.za.

Yours sincerely



Ms Pam Yako
Director – General
Department of Environmental Affairs and Tourism
Date: 05/06/07

cc: **Brett Lawson**
Ninham Shand Consulting Services 044 874-2165

RECORD OF DECISION FOR PROJECT REFERENCE 12/12/20/807: CONSTRUCTION OF THE ESKOM GENERATION PROPOSED 5400MW COAL-FIRED POWER STATION, WITBANK

By virtue of the power delegated by the Minister in terms of section 33(1) Environment Conservation Act, (Act 73 of 1989) ("the Act"), I hereby, in terms of section 22(3) of the Act, authorise Eskom Holdings Limited to undertake the activities specified/ detailed below subject to the indicated conditions.

1. DESCRIPTION, EXTENT AND LOCATION OF THE ACTIVITY:

The proposed development will include the construction of a 5400MW coal-fired power station and ancillary uses near Witbank, on approximately 2500ha of the Farm Hartbeestfontein 537 JR and the Farm Klipfontein 568 JR. Site X was identified as the preferred site for the proposed coal-fired power station.

The proposed project will consist of the establishment of the following components:

- Power station precinct:
  - Power station buildings;
  - Administrative buildings (control buildings, medical, security etc); and
  - High voltage yard.
- Associated infrastructure:
  - Coal stock yard;
  - Coal and ash conveyors;
  - Water supply pipelines (temporary and permanent);
  - Water and wastewater treatment facilities;
  - Ash disposal systems;
  - Access roads (including haul roads);
  - Dams for water storage; and
  - Railway siding and / or line for sorbent supply.

The proposed site falls within the jurisdiction of Delmas Local Municipality within the Mpumalanga Province.

2. KEY FACTORS INFORMING THE DECISION:

2.1 In reaching its decision in respect of the application, the Department of Environmental Affairs and Tourism ("the Department") has taken, *inter alia*, the following into consideration:

a) The information contained in the:
- Plan of Study for Scoping dated April 2006.
- Final Scoping Report (FSR) dated October 2006.
- Final Environmental Impact Report (FEIR) dated February 2007.
- Specialist Reports contained in Volumes 2, 3 and 4 of the FEIR dated November 2006 and February 2007.

b) *Compliance with applicable international and national legislation and Departmental policies:*

- The Act
- The principles set out in Section 2 of the National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA).
- Process 29 set out in the Scheduled processes under the Second Schedule to the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965).
- The principles of sound management of toxic chemical set out in Chapter 19 of Agenda 21.
- Minimum requirements for landfills by the Department of Water Affairs and Forestry (second edition, 1998).
- Stockholm Convention.

2.2 In reviewing this information, the Department made the following findings:

- The proposed development is part of Eskom's new capacity installation programme and is intended to meet the future base load electricity demands of South Africa, which is under severe pressure.
- The purpose of the proposed power station is to increase the Eskom Generation base load capacity to facilitate the forecast increase in demand by 2010 and to further supply this additional capacity in such a way that it improves security of supply to the national grid system and South Africa in its entirety.
- The proposed coal-fired power station will be a direct dry cooled, coal-fired pulverised fuel power station and will have a generation capacity of 5400 MW.
- Existing sources of atmospheric emission which occur in the vicinity of the proposed development sites include:
  - Emissions from various Eskom power stations;
  - Stack, vent and fugitive emissions from industrial operations;
  - Fugitive emissions from mining operations, including mechanically generated dust emissions and gaseous emissions from blasting and spontaneous combustion of discard coal dumps;
  - Vehicle entrainment of dust from paved and unpaved roads;
  - Vehicle tailpipe emissions;
  - Household fuel combustion (particularly use of coal);
  - Biomass burining (veld fires); and
  - Various other fugitive dust sources, e.g. agricultural activities and wind erosion of open areas.
- The proposed power station is in close proximity to the existing Kendal Power Station.
- The burning of coal in the proposed power station will potentially release significant amounts of air pollutants such as Sulphur Dioxide (SO_2), Nitrogen oxides (NO_x), Carbon Monoxide (CO), and trace emissions of various heavy metals.
- Considerable potential exists for cumulative concentrations and increases in the magnitude and frequency of SO_2 limit exceedances and hence the spatial extent of non-compliance.
- Ambient SO_2 standards are already being exceeded in the area where the new power station is proposed.
- Wet Flue Gas Desulphurisation (FGD) with at least 90% removal efficiency will be implemented.
- Compliance with ambient SO_2 limits cannot be achieved through the implementation of SO_2 abatement technologies for the proposed power station, given that the current non-compliance is due to existing sources. The implementation of SO_2 abatement technologies can however avoid any significant increases in non-compliance from the current situation.
- The proposed power station will potentially release significant amounts of greenhouse gases, namely, Carbon Dioxide (CO_2) and Nitrous Oxide (N_2O).

- The proposed power station would increase the South African energy sector's CO_2 equivalent emissions by some 12,8% and would increase the country's contributions towards the emission of greenhouse gasses by some 9,7%.
- The proposed power station would operate under Eskom's Zero Liquid Effluent Discharge policy and accordingly no water or effluent would be discharged into local river systems.
- Above-ground ash dumping will be employed as the preferred ash disposal method. The impacts of this method are manageable and are therefore an acceptable means of ash disposal.
- The establishment of a power station on the proposed site will result in the loss of approximately 2500ha of agricultural land.

Based on the information considered, the Department's conclusions are that:

a) the proposed activities may lead to substantial detrimental impact on the environment;
b) the need for the project have been adequately demonstrated;
c) the activities will result in socio-economic benefits, not only to the Witbank area, but to the country as a whole;
d) the implementation of the mitigation measures and conditions set out in this Record of Decision, are considered adequate to minimise detrimental impacts to acceptable levels;
e) subject to successful implementation of conditions and mitigation measures, the proposed development is likely to be acceptable; and
f) the principles of section 2 of NEMA can largely be upheld.

The Department has accordingly decided to grant Eskom Holdings Limited authorisation in terms of Regulations R 1182 and R 1183 (as amended), promulgated under section 21, 22 and 26 of the Environment Conservation Act (Act 73 of 1989) for the activities specified below, subject to the conditions and provisions listed below.

3. CONDITIONS

3.1 Description of the activity

The authorisation applies in respect of the following activities as listed in Schedule 1, regulation R. 1182 and described in Plan of Study for Scoping dated April 2006:

- Item 1: The construction, erection or upgrading of-
  - (a) facilities for commercial electricity generation with an output of at least 10 megawatts and infrastructure for bulk supply;
  - (c) with regard to any substance which is dangerous or hazardous and is controlled by national legislation-
    - infrastructure, excluding road and rails, for the transportation of any such substance; and
    - manufacturing, storage, handling, treatment or processing facilities for any such substance;
  - (d) roads, railways, airfields and associated structures;
  - (g) structures associated with communication networks, including masts, towers and reflector dishes'
  - (l) schemes for the abstraction or utilisation of ground or surface water for bulk supply purposes;
  - (n) sewerage treatment plants and associated infrastructure;
- Item 2: The change of land use from-
  - (c) agricultural or zoned undetermined use or an equivalent zoning to any other land use.

- Item 8: The disposal of waste as defined in section 20 of the Act, excluding domestic waste, but including the establishment, expansion, upgrading or closure of facilities for all waste, ashes and building rubble.

3.2 SPECIFIC CONDITIONS

3.2.1 Water quality management

3.2.1.1 All risk reduction recommendations made in the Hydrogeological Assessment, GCS (Pty) Ltd dated 14 November 2007 must be considered during the planning of the new power station.

3.2.1.2 All polluted water must be recycled until all pollutants are captured as waste for disposal with the ash deposition.

3.2.1.3 Eskom must ensure that the metering procedure of water supplied to the proposed power station must measure to a level of accuracy of 0,5%. Water and salt balances must be carried out once a month to verify performance and identify potential problems.

3.2.1.4 Leak detections and inspections, on site and along pipelines must be implemented.

3.2.1.5 The cooling water sludge from the cold lime softening process be co-disposed with the ash.

3.2.1.6 The sludge removed from raw water storage dams and reservoirs must be used in borrow pits or cover for waste sites.

3.2.1.7 The "dirty" water generated on site and considered for irrigation must be tested to determine its suitability in terms of salinity and Sodium Absorption Ratio (SAR).

3.2.1.8 Eskom must continuously monitor the ground water quality and implement measures to ensure that pollution of the resource does not occur. The monitoring programme for water quality and measures to control and prevent pollution of the resource shall be included in the operational EMP.

3.2.2 Faunal and floral management

3.2.2.1 A site specific wetland assessment and a rare and endangered species survey must be undertaken during the appropriate season. This must inform the identification of less sensitive areas, for the positioning of corridors for pipelines, roads, railways and coal conveyors. These corridors should be planned in a way that avoids or minimises the impacts on wetlands.

3.2.2.2 All unavoidable construction within wetland areas must be done so as to minimise disturbance of the pedology which would directly affect subterranean hydrology in wetlands systems.

3.2.2.3 A revised layout must be submitted indicating how the proposed corridors for the pipelines, roads, railways and coal conveyors have taken the wetlands into consideration during the planning stage of the proposed alignment of these routes. This revised layout must also indicate where the proposed dams for water storage will be constructed.

3.2.3 Visual impact management

3.2.3.1 The following design measures must be implemented at the proposed power station to ensure that visual intrusion is kept to the minimum:

- Treat building facades and roofs with a muted, mat paint that is similar to the prevailing colour of the landscape.
- Avoid very light or dark finishings that will increase colour contrast with the foreground and background.
- Reduce the use of reflective building materials such as glass to avoid glare and visual discomfort to viewers.
- Screen planting should be introduced along perimeter roads passing the site, around the coal stockyard and the ash dump to screen views of the proposed project components.
- Avoid over-illumination of outdoor spaces. Low pressure sodium lights are regarded as highly energy efficient and suitable for security lighting.

3.2.3.2 Retain the existing vegetation cover of the site through selective clearing. This will ensure that screening takes place during the construction and operational phases of the development.

3.2.3.3 The ash dump's final slope configuration should avoid sharp angles and straight lines. The slope typically consists of benches and rises. The edges that will be created as a result of these changes in slope should be rounded to create an even light distribution over the edge and avoid distinct, straight shadow lines.

3.2.4 Noise impact management

3.2.4.1 The Gauteng and the National Noise Control Regulations as well as SANS 10103:2004 must be used as the main guidelines for addressing the potential noise impact on this project.

3.2.4.2 Buildings housing noisy machinery must be insulated in order to minimise the transmission of noise through the walls and roof.

4.2.4.3 Noise mitigation measures must be investigated by an acoustical engineer. More information with regards to the cooling fan shielding needs to be provided to this Department.

3.2.5 Social risk management

3.2.5.1 A Quantitative Risk Assessment must be undertaken in terms of the Major Hazardous Installation (MHI) Regulations (July 2001) prior to construction. This MHI must be undertaken once the detailed engineering designs and layouts have been developed. The findings of this assessment must be incorporated into the construction Environmental Management Plan (EMP).

3.2.6 Heritage impact management

3.2.6.1 All recommendations made and mitigation measures proposed in the Heritage Impact Assessment, National Cultural History Museum dated October 2006 must be implemented for the 9 culturally important identified sites on the proposed property.

3.2.6.2 The South African Heritage Resource Agency (SAHRA) must be informed if any of the 9 culturally important identified sites are going to be impacted upon by the proposed development.

3.2.7 Air quality management

3.2.7.1 Eskom must install, commission and operate any required SO_2 abatement measures that may be necessary to ensure compliance with any applicable emission or ambient air quality standards published in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004).

3.2.7.2 Particulate abatement measures such as bag filters or electrostatic precipitators must be implemented at the proposed power station to reduce PM_{10} emissions.

3.2.7.3 Eskom must initiate a programme of support for initiatives aimed at improving air quality in the Witbank residential area. This programme must be included in the operational EMP.

3.2.7.4 The power station must be operated in compliance with any related Registration Certificate issued in terms of the Atmospheric Pollution Prevention Act, Act 45 of 1965, or any related Atmospheric Emission License issued in terms of the National Environment Management: Air Quality Act, Act 39 of 2004.

3.2.7.5 Low NOx burners must be included in the design of the boilers to reduce the NOx levels.

3.2.7.6 Eskom must indicate which technology will be installed to reduce the emission of mercury to the atmosphere. The percentage and minimum of by how much this reduction will take place must be provided in the construction EMP.

3.2.8 Traffic impact management

3.2.8.1 The future proposed alignment of the K29/1 intersects the proposed site. The road alignment must be verified with the Mpumalanga Roads Department before the commencement of the design of access roads to the site.

3.2.8.2 The internal road network utilized for access to the site must be resurfaced, upgraded or reconstructed as required. Special attention must be given to providing adequate drainage and subsurface drainage systems on all roads.

3.2.9 Socio-economic impact management

3.2.9.1 Community forums and communication channels between the local communities, construction companies / contractors and Eskom must be established and maintained.

3.2.9.2 Assistance must be provided to the inhabitants on site through skills development and job opportunities. Information with regards to this must be included in the environmental compliance report to be undertaken by the Environmental Control Officer (ECO)(refer to 3.2.13.4 below).

3.2.10 Agricultural impact management

3.2.10.1 Eskom must provide the Department with an action plan related to the surplus land, not occupied by infrastructure related to the power station which could be leased to farmers for the utilization of agricultural production. This action plan must be included in the operational EMP.

3.2.11 Environmental Monitoring Committee (EMC)

3.2.11.1 This development is authorised on condition that the developer establishes an EMC with clear terms of reference as described in 3.2.11.6.

3.2.11.2 Amongst others the EMC shall consist of the following members:

(a) A chairperson as described in 3.2.11.3,
(b) The ecologist that participated in the EIA process, or any other suitably qualified and experienced ecologist approved for this purpose by the Department,
(c) Representatives from the public (at least two people),
(d) Environmental Control Officer (ECO) (once appointed in terms of 3.2.13 below),
(e) A senior site manager from the main contractor, and
(f) An air quality specialist.

3.2.11.3 The EMC must appoint an independent chairperson who has appropriate people and project management skills.

3.2.11.4 The EMC must meet on a bi-monthly basis from the inception of the project.

3.2.11.5 The EMC must report to the Director of Environmental Impact Evaluation of the Department of Environmental Affairs and Tourism on a bi-monthly basis and the report must include matters as described in 3.2.11.6 below.

3.2.11.6 The purpose of the EMC is to execute the following:

(a) To monitor and audit project compliance to the conditions of this record of decision, environmental legislation and specific mitigation requirements as stipulated in the environmental impact report and the Environmental Management Plans.
(b) To make recommendations to the Director of Environmental Impact Evaluation on issues related to the monitoring and auditing of the project.
(c) The EMC shall decide on the frequency of meetings should a need arise to review the prescribed frequency. This change should be communicated to the Department for acceptance.

3.2.11.7 All costs associated with the EMC shall be borne by the applicant. The terms of reference for the EMC must, in addition to the scope of work as detailed in 3.2.11.6, clearly set out roles and responsibilities related to logistical arrangements, administration and financial arrangements associated with the EMC.

3.2.11.8 Upon completion of construction, the role, responsibilities and constitution of the EMC shall be re-considered and re-established with new terms of reference for the operational phase of the development.

3.2.12 Environmental Management Plan (EMP)

3.2.12.1 Eskom must submit a site specific construction EMP to the relevant authorities for acceptance before commencement of any of the activities related to this authorisation. The EMP must include but not be limited to the following aspects:

- Rehabilitation of all areas disturbed during the construction phase of the project excluding those areas where permanent structures are erected.
- Siting and management of construction camps, sanitation, ablution and housing facilities as well as material storage areas used by the contractor. All work areas must be supplied with proper sanitation facilities.
- Management and rehabilitation of access roads to individual construction areas that will not become permanent roads upon completion of construction. Any new road constructed for any purpose not authorised as part of this authorisation, must comply with the relevant SANS codes and permission for construction must be obtained from DEAT as required by Schedule 1, item 1 (d) of R. 1182.
- Waste avoidance, minimisation and disposal of waste at an appropriate facility.
- Protection of any heritage sites likely to be impacted by the development should such sites be found during any phase of the project to follow.
- Provisions for harvesting of any medicinal plants that may occur on site prior to site clearance.
- Protection of indigenous vegetation where such is not affected by the physical footprint of the power station plant or ancillary infrastructure and associated construction works.
- Provision for plant search and rescue of protected and endangered species which should be done before commencement of any construction related activity.
- Management of traffic during the construction phase of the development where the site access roads and other transportation networks intersect.
- Measurement, monitoring and management of noise and dust pollution levels during the construction phase.
- A fire control management plan for implementation on site.
- Implementation of site specific erosion and sediment and dust control measures during the construction phase of the project.
- Insofar as it relates to the activities hereby approved, all recommendations and mitigation measures as proposed in the final environmental impact report dated February 2007 forms part of this record of decision and must be implemented as part of the EMP.

3.2.12.2 Once accepted by DEAT, the revised construction EMP will be seen as a dynamic document. However, any changes to the EMP, must be submitted to DEAT for acceptance before such changes could be effected. Such a submission for consideration by DEAT must be accompanied by recommendations of the EMC.

3.2.12.3 Compliance with the accepted construction EMP must form part of all tender documentation for all contractors working on the project and must be endorsed contractually.

3.2.12.4 Eskom must submit an EMP for the operational phase of the development to DEAT and other relevant provincial and local authorities for acceptance prior to the completion of construction phase and the inception of the operational phase of the development. The revised operational EMP will be seen as a dynamic document. However, any substantial changes to the operational EMP, which is environmentally defendable, must be submitted to DEAT for acceptance before such changes could be effected.

3.2.13 Environmental Control Officer (ECO)

3.2.13.1 The developer must appoint a suitably qualified Environmental Control Officer (ECO) who would on behalf of the EMC, on a daily basis monitor the project compliance with conditions of the record of decision, environmental legislation and recommendations of the EMP. The cost of the ECO shall be borne by the applicant.

3.2.13.2 The ECO must be appointed one month before the start of construction and the authorities must be notified of such an appointment for communication purposes.

3.2.13.3 The ECO shall ensure that periodic environmental performance audits are undertaken on the project implementation.

3.2.13.4 The ECO shall submit an environmental compliance report on a two-monthly basis, in writing, to the Director of Environmental Impact Evaluation of the Department of Environmental Affairs and Tourism (DEAT), copied to the Mpumalanga Department of Agriculture and Land Administration.

3.2.13.5 The ECO shall maintain the following on site:

- A daily site diary
- A non-conformance register
- A public complaint register
- A register of audits

3.2.13.6 The ECO shall remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is handed over to Eskom by the contractor for operation.

3.2.13.7 The ECO shall report to and be accountable to the EMC.

3.2.14 Monitoring and auditing

3.2.14.1 Records relating to monitoring and auditing must be made available for inspection to any relevant authority in respect of this development.

3.2.14.2 This Department reserves the right to monitor and audit the development throughout its full life cycle to ensure that it complies with the conditions stipulated in the record of decision as well as mitigation measures in the final environmental impact report dated February 2007, construction and operational EMPs.

3.2.15 Transportation and handling of hazardous materials.

3.2.15.1 During the construction of the power station, an effective monitoring system must be put in place to ensure safety and to detect any leakage or spillage of coolants from all oil containing equipment during transportation, their handling and installation.

3.2.15.2 The transportation and handling of hazardous substances must comply with all the provisions of the Hazardous Substances Act, (Act No.15 of 1973), associated regulations as well as SABS 0228 and SABS 0229 codes.

3.2.16 Rehabilitation after construction

3.2.16.1 No exotic plant species may be used for rehabilitation purposes. Only indigenous plants may be utilised.

3.2.16.2 Measures aimed at controlling invasive plant species and weeds must be implemented and must form part of the relevant EMP.

3.2.16.3 No disturbance of the land at any stream, rivers edge or wetland is allowed unless such disturbance complies with legislation and conforms to strict design parameters.

3.2.17 Compliance with other legislation

3.2.17.1 Archaeological remains, artificial features and structures older than 60 years are protected by the National Heritage Resources Act, 1999 (Act No. 25 of 1999). Should any archaeological artefacts be exposed during excavation for the purpose of laying foundations, construction in the vicinity of the finding must be stopped. An archaeologist must be called to the site for inspection. Under no circumstances shall any artefacts be destroyed or removed from the site. SAHRA must be contacted to this effect. Their recommendations should be included in the construction EMP and be adhered to.

3.2.17.2 All provisions of the Occupational Health and Safety Act, 85 of 1993, and any other applicable legislation must be adhered to by the holder of this authorisation.

3.2.17.3 All provisions of the National Water Act, Act 36 of 1998, must be adhered to by the holder of this authorisation.

3.2.17.4 All provisions of the National Environment Management: Air Quality Act, Act 39 of 2004, must be adhered to by the holder of this authorisation.

3.2.17.5 All provisions of the Atmospheric Pollution Prevention Act, Act 45 of 1965, must be adhered to by the holder of this authorisation.

3.2.17.6 All provisions of the National Environment Management: Biodiversity Act, Act 10 of 2004, must be adhered to by the holder of this authorisation.

3.2.17.7 Should fill material be required for any purpose, the use of borrow pits must comply with the provisions of the Minerals and Petroleum Resources Development Act, 28 of 2002 administered by the Department of Minerals and Energy.

3.2.17.8 A permit shall be obtained from the provincial department of nature conservation for the removal of indigenous protected and endangered plant and animal species.

3.3 GENERAL CONDITIONS

3.3.1 This authorisation is granted only in terms of section 22 of the Environment Conservation Act,1989 (Act No.73 of 1989) and does not exempt the holder thereof from compliance with any other legislation.

3.3.2 This authorisation refers only to the activities as specified and described in the final environmental impact report dated February 2007. Any other activity listed under section 21 of the Environment Conservation Act, 1989 (No. 73 of 1989) which is not specified above, is not covered by this authorisation, and must therefore comply with the requirements of the Environment Conservation Act, Government Notice R 1182 and R.1183 (as amended).

3.3.3 This authorisation is subject to the approval of the relevant local authorities in terms of any legislation administered by those authorities.

3.3.4 The applicant must, within 7 (seven) calendar days of receipt of this record of decision inform all interested and affected parties and at least include the following:

(i) That an authorisation has been issued to the applicant to proceed with the construction and operation of the activity. If requested, provide copies of this ROD.

(ii) That any appeals against the issuing of the authorisation must be lodged with the Minister of Environmental Affairs and Tourism within 30 (thirty) days from the date on which this ROD has been issued to the applicant at the address stipulated in this ROD.

(iii) That an appeal questionnaire may be used in the lodging of an appeal. It is obtainable from the Department's offices at tel. (012) 310 3590 or e-mail: cveeden@deat.gov.za.

(iv) The date on which the ROD was issued to the applicant in terms of regulation 10(1) and the date by which appeals must reach the Minister.

Failure to inform interested and affected parties within the stipulated time period may result in the Minister considering requests from such parties for permission to submit a late appeal favourably.

3.3.5 One week's written notice must be given to this Department before commencement of construction activities. Such notice shall make clear reference to the site location details and reference number given above.

3.3.6 One week's written notice must be given to this Department before commencement of operation activities. Such notice shall make clear reference to the site location details and reference number given above.

3.3.7 The applicant shall be responsible for ensuring compliance with the conditions contained in this ROD by any person acting on his behalf, including but not limited to, an agent, servant, or employee or any person rendering a service to the applicant in respect of the activity, including but not limited to, contractors and consultants.

3.3.8 The applicant must notify the Department in writing, within 24 (twenty four) hours if any condition of this authorisation cannot, or is not, adhered to. The notification must be supplemented with reasons for non-compliance.

3.3.9 A copy of the authorisation and ROD shall be available on site during construction and all staff, contractors and sub-contractors shall be familiar with or be made aware of the contents of this authorisation and ROD.

3.3.10 Compliance/non-compliance records must be kept and shall be made available on request from the authorities within five days of receipt of the request.

3.3.11 Any changes to, or deviations from, the project description set out in this letter must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations.

3.3.12 This Department may review the conditions contained in this letter from time to time and may, by notice in writing to the applicant, amend, add or remove a condition.

3.3.13 In the event that the predicted impacts exceed the significance as predicted by the independant consultant in the final environmental impact report dated February 2007, the authorisation may be withdrawn after proper procedures have been followed.

3.3.14 In the event of any dispute concerning the significance of a particular impact, the opinion of the Department of Environmental Affairs and Tourism (DEAT) in respect of its significance will prevail.

3.3.15 The applicant must notify the Department, in writing, at least 10 (ten) days prior to the change of ownership, project developer or the alienation of any similar rights for the activity described in this letter. The applicant must furnish a copy of this document to the new owner, developer or person to whom the rights accrue and inform the new owner, developer or person to whom the rights accrue that the conditions contained herein are binding on them.

3.3.16 Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/or telephonic details, the applicant must notify the Department as soon as the new details become known to the applicant.

3.3.17 National government, provincial government, local authorities or committees appointed in terms of the conditions of this application or any other public authority or authorisation shall not be held responsible for any damages or losses suffered by the applicant or his successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the applicant with the conditions of approval as set out in this document or any other subsequent document emanating from these conditions of approval.

3.3.18 If any condition imposed in terms of this authorisation is not complied with, the authorisation may be withdrawn after 30 days written notice to the applicant in terms of section 22(4) of the Environment Conservation Act, 1989 (Act No. 73 of 1989).

3.3.19 Failure to comply with any of these conditions shall also be regarded as an offence and may be dealt with in terms of sections 29, 30 and 31 of the Environment Conservation Act, 1989 (Act No. 73 of 1989), as well as any other appropriate legal mechanisms.

3.3.20 The applicant shall be responsible for all costs necessary to comply with the above conditions unless otherwise specified.

3.3.21 Any complaint from the public during construction must be attended to as soon as possible to the satisfaction of the parties concerned. A complaints register must be kept up to date and shall be produced upon request.

3.3.22 Departmental officials shall be given access to the properties earmarked for construction activities for the purpose of assessing and/or monitoring compliance with the conditions contained in this document at all reasonable times.

3.3.23 All outdoor advertising associated with this activity, whether on or off the property concerned, must comply with the South African Manual for Outdoor Advertising Control (SAMOAC) available from this Department.

3.4 DURATION OF AUTHORISATION

If the activity authorised by this letter does not commence within 4 (four) years from the date of signature of this letter, the authorisation will lapse and the applicant will need to reapply for exemption or authorisation in terms of the above legislation or any amendments thereto or any subsequent new legislation.

4. CONSEQUENCES OF NON-COMPLIANCE

The applicant must comply with the conditions set out in this letter. Failure to comply with any of the above conditions may result in, *inter alia*, the Department withdrawing the authorisation, issuing directives to address the non-compliance – including an order to cease the activity – as well as instituting criminal and/or civil proceedings to enforce compliance.

5. APPEALS

Appeals in respect of this decision must be lodged with the Minister of Environmental Affairs and Tourism within 30 (thirty) days of the date of this decision. Appeals can be submitted utilising one of the following methods:

By facsimile:	(012) 322 0082
By post:	Private Bag X447, Pretoria 0001
By hand:	2nd Floor, Fedsure Forum Building, North Tower, cor. Van der Walt and Pretorius Streets, Pretoria.

Appeals must comply with the provisions of Regulation 11 of Government Notice No. R. 1183 which reads as follows:
"An appeal to the Minister or provincial authority under section 35(3) of the Act must be done in writing within 30 days from the date on which the ROD was issued to the applicant in terms of regulation 10(1);
An appeal must set out all the facts as well as the grounds of appeal, and must be accompanied by all relevant documents or copies of them which are certified as true by a commissioner of oaths."

An appeal questionnaire may be used in the lodging of an appeal. It is obtainable from the Department's offices at tel. (012) 310 3590 or e-mail: cveeden@deat.gov.za.

Should the applicant wish to appeal any aspect of this decision, the applicant must notify and furnish copies of the appeal which will be submitted to the Minister, to all registered interested and affected parties. Proof of such notification must be submitted to the Minister with the appeal. Failure to comply with this provision may result in the Minister refusing to consider the appeal.

6. APPLICANT:

Eskom Holdings Limited: Generation Division
P O Box 1091
JOHANNESBURG
2000

Contact person: Ms Deirdre Herbst
Fax: (011) 800 5140

7. CONSULTANT:

Ninham Shand Consulting Services
P O Box 509
GEORGE
6530

Contact person: Brett Lawson
Fax: (044) 874-2165

Ms Pam Yako
Director – General
Department of Environmental Affairs and Tourism
Date: 05/07/07

MINISTRY: ENVIRONMENTAL AFFAIRS AND TOURISM
REPUBLIC OF SOUTH AFRICA
Private Bag X447, Pretoria, 0001, Tel: (27-12) 310 3611 Fax: (27-12) 322 0082
Private Bag X9154, Cape Town, 8000 Tel: (27-21) 465 7240/1/2, Fax: (27-21) 465 3216
www.deat.gov.za

Mr T Singleton
Eskom Holdings Limited: Generation Division
P O Box 1091
JOHANNESBURG
2000

Fax no. 011 800 5140

Dear Mr Singleton

RE: RECORD OF DECISION FOR PROJECT REFERENCE 12/12/20/807: CONSTRUCTION OF THE ESKOM GENERATION PROPOSED 5400MW COAL-FIRED POWER STATION, WITBANK

The Minister of Environmental Affairs and Tourism, Mr Marthinus van Schalkwyk, has considered the appeals against the Department's decisions to grant authorisation to the applicant for the construction of the proposed 5400mw coal-fired power station, Witbank (Project Bravo).

After evaluating all the appeals and relevant information submitted to him, he has come to a decision as attached hereto.

Sincerely,

RIAAN AUCAMP
ACTING: HEAD OF MINISTRY

17 MAR 2008

MINISTRY FOR ENVIRONMENTAL AFFAIRS AND TOURISM

Ref: 12/12/20/807

APPEAL DECISION

MINISTER OF ENVIRONMENTAL AFFAIRS AND TOURISM

APPEALS AGAINST THE ENVIRONMENTAL AUTHORISATION FOR THE CONSTRUCTION OF A 5400MW COAL-FIRED POWER STATION IN WITBANK

1. INTRODUCTION

The project in question involves the construction of a 5400MW coal-fired power station and associated infrastructure near Witbank, on approximately 2500ha of land on the Farm Hartbeesfontein 537 JR and the Farm Klipfontein 566 JR.

2. BACKGROUND

The development that is the subject of this appeal entails the erection of a 5400MW coal-fired power station and its components and associated infrastructure listed below:

2.1 Power Station Precinct.

i) Power station buildings;

ii) Administrative buildings (control buildings, medical, security etc);

iii) High voltage yard.

2.2 Associated Infrastructure

i) Coal stock yard;

ii) Coal and ash conveyors;

iii) Water supply pipelines (temporary and permanent);

iv) Water and wastewater treatment facilities;

v) Ash disposal system;

vi) Access roads (including haul roads);

vii) Dams for water storage; and

viii) Railway siding and/or line for sorbent supply.

2.3 The applicant in this project is Eskom Holdings Ltd, Generation Division (Eskom).

2.4 In terms of the environmental impact assessment (EIA) regulations conducted under the Environment Conservation Act, 1989 (Act 73 of 1989) [ECA]), and which Act still governs this project, the construction of a facility of this nature is subject to EIA and an environmental authorisation.

2.5 The development was authorised by the Director-General and a positive record of decision (ROD) was granted in respect of this development on 5 June 2007. Two appeals, in terms of section 35(3) of the *Environment Conservation Act, 1989*, were received by my office against the proposed project.

3. APPEALS

3.1 The appellants

After the ROD in this matter was issued, my office received two appeals from Mr J H van der Merwe, a local landowner and farmer, and from the Kendal Poultry Farm (Pty) Ltd, represented by its attorneys, J B Hugo & Cronje, respectively.

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3.2 Grounds of appeal

The grounds of appeal are briefly listed below:

a) No consultation

According to Mr Van der Merwe, he was not consulted regarding the project.

b) Impact of the ash dump

The same appellant referred to in (a) above submits that the ash dump will be detrimental to the health of his family and his farm animals.

c) Impact on the appellant's normal way of life and living on the farm

Mr Van der Merwe avers that the proposed power station will impact on the normal way of life of his family on the farm.

d) Cumulative environmental impact assessment (EIA) not done

It is the submission of Kendal Poultry that an assessment was not done with regard to the cumulative impact of the proposed power station and the proposed Anglo Coal Mine.

e) Adverse air impact.

Kendal Poultry alleges that there will be adverse air impact on its poultry farm, which will detrimentally affect the health of its chickens.

f) Socio-economic impacts

According to Kendal Poultry, there will be potential negative socio-economic impacts. The appellant states that its staff component of 110 persons and their many dependants are deeply affected and concerned as to their future jobs and their health, being in such close proximity to the proposed power station.

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g) Impacts on water quality

Kendal Poultry submits that there will be impacts on the quality of the water from its boreholes, of which a large quantity is used on the poultry farm for various purposes.

4. DECISION

4.1 INFORMATION CONSIDERED

In reaching my decision, I have considered the following information:

- The project file in this matter, including the ROD granted on 5 June 2007;
- The appeals lodged against this development, the response thereto by Eskom's consultants and one appellant's reply thereto; and
- The department's responses to the grounds of appeal.

4.2 DECISION

4.1 I have, in terms of section 35(4) of ECA, decided to dismiss the appeals lodged against the decision to grant the environmental authorisation for the construction of the proposed power station and its associated infrastructure. The reasons for my decision are set out below.

4.2 I have further decided to vary the authorisation issued by the Department and attach the revised authorisation hereto as Annexure B. More specifically, I have added conditions to the following effect:

(a) The applicant, in consultation with the relevant appellant must, on a quarterly basis, monitor the reproductive health of the poultry on the Appellant's farm and if it is conclusively established that there is a causal connection between

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the emissions from the power station and any deterioration in the health of the chickens, corrective measures must be implemented by the applicant;

(b) The applicant must establish an ambient air quality monitoring station to monitor the ambient air impact of the power station.

The revised ROD has been supplemented accordingly.

4.3 REASONS FOR THE DECISION

I indicate briefly the reasons for my decision to authorise this development. In doing so, I am satisfied that:

(a) There was sufficient consultation in this matter and that the legislative requirements in this regard have been satisfied;

(b) The need and desirability for the project has been adequately demonstrated. The proposed project is part of the applicant's new capacity installation programme and is intended to meet some of the pressing electricity demands of the country;

(c) The Director-General adequately considered the major anticipated environmental impacts of this development before issuing the environmental authorisation on 5 June 2007;

(d) The potential impacts on human and animal health from the ash dump can be mitigated to acceptable levels through the conditions set by the authorisation and other measures, but that additional measures must be put in place to ensure adequate monitoring of air quality. I have also taken note in my analysis of the information before me that the proposed power station will be located within the newly proclaimed Highveld Priority Area. It is therefore envisaged that detailed air quality management interventions will be made within the area to generally improve ambient air quality. In addition, I am satisfied that the technology utilized for this development conforms to international best practice standards and will set the standard for similar developments in this country in future;

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(e) The conditions included in the revised ROD are deemed adequate to provide for the mitigation of the identified impacts to acceptable levels;

(f) The development will result in socio-economic benefits, not only to the Witbank area, but to the country as a whole.

(g) By implementing the mitigation measures contained in this revised ROD, the principles contained in section 2 of the National Environmental Management Act, 1998 (Act 107 of 1998, NEMA) can be substantially complied with.

I however reserve the right to amplify my reasons for this decision should the need arise.

Martinus van Schalkwyk

MARTINUS VAN SCHALKWYK, MP

MINISTER OF ENVIRONMENTAL AFFAIRS AND TOURISM

DATE: 17 MAR 2008

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ANNEXURE B

RECORD OF DECISION

RECORD OF DECISION FOR PROJECT REFERENCE 12/12/20/807: CONSTRUCTION OF THE ESKOM GENERATION PROPOSED 5400MW COAL-FIRED POWER STATION, WITBANK

By virtue of the power vested in me in terms of section 35(4) of the Environment Conservation Act,1989 (Act 73 of 1989) ("the Act"), read with section 22(3) of the Act, I hereby authorise Eskom Holdings Limited to undertake the activities specified/ detailed below subject to the indicated conditions.

1. DESCRIPTION, EXTENT AND LOCATION OF THE ACTIVITY:

The proposed development will include the construction of a 5400MW coal-fired power station and associated infrastructure near Witbank, on approximately 2500ha of the Farm Hartbeestfontein 537 JR and the Farm Klipfontein 566 JR. Site X, as indicated on page 2 of the Final Environmental Impact Report (Ninham Shand Report No. 4284/401281, dated February 2007), was identified as the preferred site for the proposed coal-fired power station. The proposed site falls within the jurisdiction of Delmas Local Municipality within the Mpumalanga Province.

The proposed project will consist of the establishment of the following components:

- Power station precinct:
  - Power station buildings;
  - Administrative buildings (control buildings, medical, security, etc); and
  - High voltage yard.

- Associated infrastructure:
  - Coal stock yard;
  - Coal and ash conveyors;

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- Water supply pipelines (temporary and permanent);
- Water and wastewater treatment facilities;
- Ash disposal systems;
- Access roads (including haul roads);
- Dams for water storage; and
- Railway siding and / or line for sorbent supply.

2. CONDITIONS

2.1 Description of the activity

The authorisation applies in respect of the following activities as listed in Schedule 1, regulation R. 1182 and described in Plan of Study for Scoping dated April 2006:

- Item 1: The construction, erection or upgrading of-
  - (a) facilities for commercial electricity generation with an output of at least 10 megawatts and infrastructure for bulk supply;
  - (c) with regard to any substance which is dangerous or hazardous and is controlled by national legislation-
    - (i) infrastructure, excluding road and rails, for the transportation of any such substance; and
    - (ii) manufacturing, storage, handling, treatment or processing facilities for any such substance;
  - (d) roads, railways, airfields and associated structures;
  - (g) structures associated with communication networks, including masts, towers and reflector dishes'
  - (l) schemes for the abstraction or utilisation of ground or surface water for bulk supply purposes;
  - (n) sewage treatment plants and associated infrastructure;

- Item 2: The change of land use from-
  (c) agricultural or zoned undetermined use or an equivalent zoning to any other land use.

- Item 8: The disposal of waste as defined in section 20 of the Act, excluding domestic waste, but including the establishment, expansion, upgrading or closure of facilities for all waste, ashes and building rubble.

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3. SPECIFIC CONDITIONS

3.1 Water quality management

3.1.1 All risk reduction recommendations made in the Hydrogeological Assessment, GCS (Pty) Ltd, dated 14 November 2007, must be considered and implemented during the planning and construction of the new power station.

3.1.2 The coal stockyard must be established on top of a suitably prepared surface to prevent leaching into the groundwater.

3.1.3 The area where the ash dump is to be established must be lined to prevent leaching into the groundwater.

3.1.4 Dams with a higher groundwater pollution risk must be sited on appropriate underlying geological strata or these dams must be lined.

3.1.5 All polluted water must be recycled until all pollutants are captured as waste for disposal with the ash deposition.

3.1.6 Eskom must ensure that the metering procedure of water supplied to the proposed power station must measure to a level of accuracy of 0,5%. Water and salt balances must be carried out once a month to verify performance and identify potential problems.

3.1.7 Leak detections and inspections, on site and along pipelines must be implemented.

3.1.8 The cooling water sludge from the cold lime softening process must be co-disposed with the ash.

3.1.9 The sludge removed from raw water storage dams and reservoirs must be used as fill material for borrow pits or to cover for waste sites.

3.1.10 The "dirty" water generated on site and considered for irrigation must be tested to determine its suitability in terms of salinity and sodium absorption ratio (SAR).

3.1.11 Eskom must continuously monitor the ground water quality and implement measures to ensure that pollution of the resource does not occur. The monitoring programme for ground water quality and measures to control and prevent pollution of the ground water resource shall be included in the operational EMP.

3.1.12 A water use licence must be applied for in terms of Section 32 (g) of the National Water Act to adequately deal with the storage of ash from the ash dump and the disposal of wet waste from the Flue Gas Desulphurisation process.

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3.2. Management of fauna and flora

3.2.1 A site specific wetland assessment and a rare and endangered species survey must be undertaken during the appropriate season. This must inform the identification of less sensitive areas, for the positioning of corridors for pipelines, roads, railways and coal conveyors. These corridors should be planned in a way that avoids or minimises the impacts on wetlands.

3.2.2 All unavoidable construction within wetland areas must be done so as to minimise disturbance of the pedology which would directly affect subterranean hydrology in wetlands systems.

3.2.3 A revised layout must be submitted indicating how the proposed corridors for the pipelines, roads, railways and coal conveyors have taken the wetlands into consideration during the planning stage of the proposed alignment of these routes. This revised layout must also indicate where the proposed dams for water storage will be constructed.

3.3 *Visual impact management*

3.3.1 The following design measures must be implemented at the power station to ensure that visual intrusion is kept to the minimum:

- Treat building facades and roofs with a muted, mat paint that is similar to the prevailing colour of the landscape.
- Avoid very light or dark finishings that will increase colour contrast with the foreground and background.
- Reduce the use of reflective building materials such as glass to avoid glare and visual discomfort to viewers.
- Screen planting should be introduced along perimeter roads passing the site, around the coal stockyard and the ash dump to screen views of these project components.
- Avoid over-illumination of outdoor spaces. Low pressure sodium lights are regarded as highly energy efficient and suitable for security lighting.

3.3.2 The existing vegetation cover of the site should be retained through selective clearing. This will ensure that screening takes place during the construction and operational phases of the development.

3.3.3 The ash dump's final slope configuration should avoid sharp angles and straight lines. The slope typically consists of benches and rises. The edges that will be created as a result of these changes in slope should be rounded to create an even light distribution over the edge and avoid distinct, straight shadow lines.

3.4 Noise impact management

3.4.1 The Gauteng and the National Noise Control Regulations, as well as SANS 10103:2004 must be used as the main guidelines to manage the noise impact of this project.

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3.4.2 Buildings housing noisy machinery must be insulated in order to minimise the transmission of noise through the walls and roof.

3.4.3 Measures to mitigate noise emanating from the cooling fans must be investigated by an acoustics engineer. Proposed mitigation measures, including the potential to shield the cooling fans must be included in the operational EMPs for consideration and approval by the Department.

3.5 Social risk management

3.5.1 A Quantitative Risk Assessment must be undertaken in terms of the Major Hazardous Installation (MHI) Regulations (July 2001) prior to construction. This risk assessment must be undertaken once the detailed engineering designs and layouts have been developed. The findings of the assessment must be incorporated into the construction Environmental Management Plan (EMP).

3.6 Heritage impact management

3.6.1 All recommendations made and mitigation measures proposed in the Heritage Impact Assessment, National Cultural History Museum, dated October 2006, must be implemented for the nine culturally important identified sites on the property.

3.6.2 The South African Heritage Resource Agency (SAHRA) must be informed if any of these identified culturally important sites are going to be impacted upon by the proposed development.

3.7 Air quality management

3.7.1 Eskom must install, commission and operate any required SO_2 abatement equipment that may be necessary to ensure compliance with any applicable emission or ambient air quality standards published in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004).

3.7.2 Particulate abatement measures such as bag filters or electrostatic precipitators must be implemented at the power station to reduce PM_{10} emissions.

3.7.3 Eskom must initiate a programme of support for initiatives aimed at improving air quality in the Witbank residential area. This programme must be included in the operational EMP.

3.7.4 The power station must be operated in compliance with any related Registration Certificate issued in terms of the Atmospheric Pollution Prevention Act, Act 45 of 1965, and any related Atmospheric Emission License issued in terms of the National Environment Management: Air Quality Act, Act 39 of 2004.

3.7.5 Low NOx burners must be included in the design of the boilers to reduce the NOx levels.

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3.7.6 Eskom must indicate the technology to be installed to reduce the emission of mercury into the atmosphere. The percentage and minimum of by how much this reduction will take place must be provided in the construction EMP.

3.7.7 Eskom must install an ambient air quality monitoring station to measure the ambient air impact of the power station. The location of the station and the pollutants to be monitored will be determined in consultation with the Department.

3.7.8 End of pipe measures need to be specific to address the sulphur dioxide and particulates emissions. These measures must include the following:

- For sulphur dioxide – FGD unit
- For particulates – ESP or bag filters
- For carbon dioxide – carbon capture readiness (the Applicant is required to submit to DEAT a report detailing the preferred technology, for approval, before proceeding with construction)

3.8 Traffic impact management

3.8.1 The future proposed alignment of the K29/1 intersects the proposed site. This road alignment must be verified with the Mpumalanga Roads Department before the commencement of the design of access roads to the site.

3.8.2 The internal road network utilised for access to the site must be resurfaced, upgraded or reconstructed as required. Special attention must be given to providing adequate drainage and subsurface drainage systems on all roads.

3.9 Socio-economic impact management

3.9.1 Community forums and communication channels between the local communities, construction companies / contractors and Eskom must be established and maintained.

3.9.2 Assistance must be provided to the inhabitants on site through skills development and job opportunities. Information with regards to this must be included in the environmental compliance report to be undertaken by the Environmental Control Officer (ECO)(refer to 3.2.13.4 below).

3.10 *Agricultural impact management*

3.10.1 Eskom must provide the Department with an action plan related to the surplus land, not occupied by infrastructure related to the power station which could be leased to farmers for agricultural production. This action plan must be included in the operational EMP.

3.10.2 In order to establish whether the operation of the power station has adverse impacts on the health and reproduction of the chickens of the Kendal Poultry Farm (hereinafter called Kendal Poultry), situated on Portions 30, 31, 62, 27 and 28 of the farm Klipfontein near Witbank, the ECO appointed in terms of paragraph 3.2.13 below must:

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(1) During the construction period compile baseline information, in consultation with Kendal Poultry, on chicken fatality and reproduction rates on a quarterly basis. This information must indicate the number of fatalities per 1 000 chickens and the number of new chickens per 1 000 hens. This baseline information must represent statistics for a period of at least one year.

(2) Once the power station has come into operation, resume and continue this quarterly compilation of statistics for at least two years. After expiry of the two year period, Eskom must:

(a) Analyse the pre-operation (baseline) data and the post-operation data to establish whether there has been any increase in chicken fatality or decrease in their reproduction rate.

(b) Undertake appropriate studies, should there be evidence of such increases and decreases, to establish whether there is a causal relation between the fertility and mortality fluctuations and the emissions emanating from the power station. These studies must be undertaken within six months after completion of the gathering of the post-operational data.

3.10.3 Should these studies confirm that such a causal relation exists, Eskom must, within two months after completion of the studies referred to in (2)(b) , submit to the Department for approval:

(a) A management plan to mitigate the impacts of the losses (if any), including but not limited to, compensation for such loss.

3.11 Environmental Monitoring Committee (EMC)

3.11.1 This development is authorised on condition that the developer establishes an EMC with clear terms of reference as described in 3.2.11.6.

3.11.2 Amongst others the EMC shall consist of the following members:

(a) A chairperson as described in 3.2.11.3,
(b) The ecologist that participated in the EIA process, or any other suitably qualified and experienced ecologist approved for this purpose by the Department,
(c) Representatives from the public (at least two people),
(d) Environmental Control Officer (ECO) (once appointed in terms of 3.2.13 below),
(e) A senior site manager from the main contractor, and
(f) An air quality specialist.

3.11.3 The EMC must appoint an independent chairperson who has appropriate people and project management skills.

3.11.4 The EMC must meet on a bi-monthly basis from the inception of the project.

3.11.5 The EMC must report to the Director: Environmental Impact Evaluation of the Department on a bi-monthly basis and the report must include matters as described in 3.2.11.6 below.

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3.11.6 The purpose of the EMC is to execute the following:

(a) To monitor and audit compliance with the conditions of this ROD, with environmental legislation and with specific mitigation requirements as stipulated in the environmental impact report and the Environmental Management Plans.

(b) To make recommendations to the Director: Environmental Impact Evaluation on issues related to the monitoring and auditing of the project.

(c) To decide on the frequency of meetings, should a need arise to review the prescribed frequency. This change should be communicated to the Department for acceptance.

3.11.7 All costs associated with the EMC shall be borne by the applicant. The terms of reference for the EMC must, in addition to the scope of work as detailed in 3.2.11.6, clearly define roles and responsibilities related to logistical arrangements, administration and financial arrangements associated with the EMC.

3.11.8 Upon completion of construction, the roles, responsibilities and constitution of the EMC shall be reconsidered and the EMC shall be re-established with new terms of reference for the operational phase of the development.

3.212 Environmental Management Plan (EMP)

3.12.1 Eskom must submit a site specific construction EMP to the relevant authorities for acceptance before commencement of any of the activities related to this authorisation. The EMP must include, but shall not be limited to the following aspects:

- Rehabilitation of all areas disturbed during the construction phase of the project excluding those areas where permanent structures are erected.
- Siting and management of construction camps, sanitation, ablution and housing facilities as well as material storage areas used by the contractor. All work areas must be supplied with proper sanitation facilities.
- Management and rehabilitation of access roads to individual construction areas that will not become permanent roads upon completion of construction. Any new road constructed for any purpose not authorised as part of this ROD, must comply with the relevant SANS codes and permission for construction must be obtained from the Department as required by Schedule 1, item 1 (d) of R. 1182.
- Waste avoidance, minimisation and disposal of waste at an appropriate facility.
- Protection of any heritage sites likely to be impacted on by the development, should such sites be found during any phase of the development of the project.
- Provisions for harvesting of any medicinal plants that may occur on site prior to site clearance.
- Protection of indigenous vegetation where such is not affected by the physical footprint of the power station, ancillary infrastructure or associated construction works.
- Provision for plant search and rescue of protected and endangered species which should be done before commencement of any construction related activity.
- Management of traffic during the construction phase where the site access roads and other transportation networks intersect.
- Measurement, monitoring and management of noise and dust pollution levels during the construction phase.

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- A fire control management plan for implementation on site.
- Implementation of site specific erosion, sediment and dust control measures during the construction phase.
- The implementation, as part of the EMP, of all recommendations and mitigation measures contained in the final environmental impact report dated February 2007.

3.12.2 Once accepted by the Department, the revised construction EMP will be seen as a dynamic document. However, any changes to the EMP, must be submitted to the Department for acceptance before such changes could be effected. Such a submission for consideration by the Department must be accompanied by recommendations of the EMC.

3.12.3 Compliance with the accepted construction EMP must form part of all tender documentation for all contractors working on the project and must be endorsed contractually.

3.12.4 Eskom must submit an EMP for the operational phase of the development to the Department and other relevant provincial and local authorities for acceptance prior to the completion of the construction phase and the inception of the operational phase of the development. The revised operational EMP will be seen as a dynamic document. However, any substantial changes to the operational EMP, which is environmentally defendable, must be submitted to the Department for acceptance before such changes are effected.

3.13 Environmental Control Officer (ECO)

3.13.1 The developer must appoint a suitably qualified Environmental Control Officer (ECO) who would, on behalf of the EMC, on a daily basis monitor the project compliance with conditions of this ROD, with environmental legislation and with the recommendations of the EMP. The cost of the ECO shall be borne by the applicant.

3.13.2 The ECO must be appointed one month before the start of construction and the relevant authorities must be notified of such an appointment for communication purposes.

3.13.3 The ECO shall ensure that periodic environmental performance audits are undertaken on the project implementation.

3.13.4 The ECO shall submit an environmental compliance report on a two-monthly basis, in writing, to the Director: Environmental Impact Evaluation of the Department, copied to the Mpumalanga Department of Agriculture and Land Administration.

3.13.5 The ECO shall maintain the following on site:
- A daily site diary
- A non-conformance register
- A public complaint register
- A register of audits

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3.13.6 The ECO shall remain employed until all rehabilitation measures as required, caused by construction damage, are completed and the site is handed over to Eskom by the contractor for operation.

3.13.7 The ECO shall report to and be accountable to the EMC.

3.14 Monitoring and auditing

3.14.1 Records relating to monitoring and auditing must be made available for inspection to any relevant authority in respect of this development.

3.14.2 The Department reserves the right to monitor and audit the development throughout its full life cycle to ensure that it complies with the conditions stipulated in the record of decision and to ensure implementation of all the mitigation measures contained in the final environmental impact report dated February 2007, and of the construction and operational EMPs.

3.15 Transportation and handling of hazardous materials.

3.15.1 During the construction of the power station, an effective monitoring system must be put in place to ensure safety and to detect any leakage or spillage of coolants from all oil containing equipment during their transportation, handling and installation.

3.15.2 The transportation and handling of hazardous substances must comply with all the provisions of the Hazardous Substances Act (Act No.15 of 1973) and its regulations as well as with SABS codes 0228 and 0229.

3.16 Rehabilitation after construction

3.16.1 No exotic plant species may be used for rehabilitation purposes. Only indigenous plants may be used.

3.16.2 Measures aimed at controlling invasive plant species and weeds must be implemented and must form part of the relevant EMP.

3.16.3 No disturbance of the land on the edge of any stream, river or wetland is allowed unless such disturbance complies with relevant legislation and conforms to strict design parameters.

3.17 Compliance with other legislation

3.17.1 Archaeological remains, artificial features and structures older than 60 years are protected in terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999). Should any archaeological artefacts be exposed during excavation for the purpose of laying foundations, construction in the vicinity of the finding must be stopped. An archaeologist must be called to the site for inspection. Under no circumstances shall any

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artefacts be destroyed or removed from the site. SAHRA must be contacted to this effect. Their recommendations should be included in the construction EMP and be adhered to.

3.17.2 All provisions of the Occupational Health and Safety Act, 85 of 1993, and any other applicable legislation must be adhered to by the holder of this authorisation.

3.17.3 All provisions of the National Water Act, Act 36 of 1998, must be adhered to by the holder of this authorisation.

3.17.4 All provisions of the National Environment Management: Air Quality Act, Act 39 of 2004, must be adhered to by the holder of this authorisation.

3.17.5 All provisions of the Atmospheric Pollution Prevention Act, Act 45 of 1965, must be adhered to by the holder of this authorisation.

3.17.6 All provisions of the National Environment Management: Biodiversity Act, Act 10 of 2004, must be adhered to by the holder of this authorisation.

3.17.7 Should fill material be required for any purpose, the use of borrow pits must comply with the provisions of the Minerals and Petroleum Resources Development Act, 28 of 2002 administered by the Department of Minerals and Energy.

3.17.8 A permit shall be obtained from the provincial department of nature conservation for the removal of indigenous protected and endangered plant and animal species.

3.18 GENERAL CONDITIONS

3.18.1 This ROD is issued only in terms of section 22 of the Act and does not exempt the holder thereof from compliance with any other legislation.

3.18.2 This ROD only refers to the activities as specified and described in the final environmental impact report dated February 2007. Any other activity listed under section 24(2) of the National Environmental Management Act, 1998 (Act 107 of 1998), which is not specified above, is not covered by this ROD.

3.18.3 This ROD is subject to the approval of the relevant local authorities in terms of any legislation administered by those authorities.

.3.18.4 One week's written notice must be given to the Department before commencement of construction activities. Such notice shall make clear reference to the site location details and reference number given above.

3.18.5 One week's written notice must be given to the Department before commencement of operational activities. Such notice shall make clear reference to the site location details and reference number given above.

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3.18.6 The applicant shall be responsible for ensuring compliance with the conditions contained in this ROD by any person acting on its behalf, including but not limited to, an agent, servant, or employee or any person rendering a service to the applicant in respect of the activity, including but not limited to, contractors and consultants.

3.18.7 The applicant must notify the Department in writing, within 24 hours, if any condition of this ROD cannot, or is not, adhered to. The notification must be supplemented with reasons for such non-compliance.

3.18.8 A copy of this ROD shall be available on site during construction and all staff, contractors and sub-contractors shall be familiar with or be made aware of the contents thereof.

3.18.9 Compliance/non-compliance records must be kept and shall be made available on request from the authorities within five days of receipt of the request.

3.18.10 Any changes to, or deviations from, the project description set out in this ROD must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations.

3.18.11 This Department may review the conditions contained in this ROD from time to time and may, by notice in writing to the applicant, amend, add or remove a condition.

3.18.12 In the event of impacts exceeding the significance predicted by the independent consultant in the final environmental impact report dated February 2007, this authorisation may be withdrawn after proper procedures have been followed.

3.18.13 In the event of any dispute concerning the significance of a particular impact, the opinion of the Department will prevail.

3.18.14 The applicant must notify the Department, in writing, at least ten days prior to the change of ownership, project developer or the alienation of any similar rights for the activity described in this ROD. The applicant must furnish a copy of this document to the new owner, developer or person to whom the rights accrue and inform the new owner, developer or person to whom the rights accrue that the conditions contained herein are binding on them.

3.18.15 Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/or telephonic details, the applicant must notify the Department as soon as possible.

3.18.16 National, provincial or local government institutions or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the applicant or his successor in title in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance by the applicant with the conditions of approval as

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set out in this document or any other subsequent document emanating from these conditions of approval.

3.18.17 If any condition imposed in terms of this authorisation is not complied with, the authorisation may be withdrawn after 30 days written notice to the applicant in terms of section 22(4) of the Act.

3.18.18 Failure to comply with any of these conditions shall also be regarded as an offence and may be dealt with in terms of sections 29, 30 and 31 of the Act, as well as in terms of any other appropriate legislation.

3.18.19 The applicant shall be responsible for all costs necessary to comply with the above conditions unless otherwise specified.

3.18.20 Any complaint from the public during construction must be attended to as soon as possible to the Satisfaction of the parties concerned. A complaints register must be kept up to date and shall be produced upon request.

3.18.21 Departmental officials shall be allowed access at all reasonable times to the properties earmarked for construction activities for the purpose of assessing and/or monitoring compliance with the conditions contained in this document.

3.18.22 All outdoor advertising associated with this activity, whether on or off the property concerned, must comply with the South African Manual for Outdoor Advertising Control (SAMOAC), which is available from the Department.

4 DURATION OF AUTHORISATION

If the activity authorised by this letter does not commence within four years from the date of signature of this ROD, the authorisation will lapse and the applicant will need to reapply for exemption or authorisation in terms of the above legislation or any amendments thereto or any subsequent new legislation.

5. CONSEQUENCES OF NON-COMPLIANCE

The applicant must comply with the conditions set out in this ROD. Failure to comply with any of the above conditions may result in, *inter alia*, the withdrawal of the authorisation, the issuing of directives to address the non-compliance – including an order to cease the activity – as well as the institution of criminal and/or civil proceedings to enforce compliance.

6. APPLICANT:

Eskom Holdings Limited: Generation Division
P O Box 1091
JOHANNESBURG
2000

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7. **CONSULTANT:**

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6530

Contact person: Brett Lawson
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Marthinus van Schalkwyk

MARTHINUS VAN SCHALKWYK
MINISTER OF ENVIRONMENTAL AFFAIRS AND TOURISM
DATE: 17 MAR 2008

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