ENVIRONMENTAL IMPACT ASSESSMENT (EIA)
DEAT REFERENCE NO.: 12/12/20/944

FOR THE PROPOSED ESKOM NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE

MEETING WITH THE NATIONAL DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM AND PROVINCIAL ENVIRONMENTAL AUTHORITIES

14 JUNE 2007

PREFACE

The Independent Environmental Impact Assessment (EIA) Project Team (EIA Team) wishes to thank the representatives from the national Department of Environmental Affairs and Tourism (DEAT), the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) and the Northern Cape Department of Tourism, Environment and Conservation (NCDTEC) who attended the notification round of public meetings as part of the Scoping Phase of this EIA.

Should participants who attended the meeting require any changes to these proceedings, please notify the Public Participation Office (ACER Africa [ACER]) in writing within two weeks of receipt.

There are three sets of minutes:

Set 1 - Public Meetings
Set 2 - Key Stakeholder Workshops
Set 3 - Various Focus Group Meetings (as requested by stakeholders)

All minutes are part of the public record and have been placed on the website www.eskom.co.za/EIA under the “Nuclear1” link. Should you wish to receive a specific set, kindly request them from the Public Participation Office

These minutes have been:

Compiled by: ARCUS GIBB (Pty) Ltd
Reviewed by: ARCUS GIBB (Pty) Ltd
Accepted by: Eskom Holdings Limited, Generation and Enterprises Divisions

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1. ATTENDANCE

1.1 Attendance – Department of Environmental Affairs and Tourism

Name	Positions
Ms Mosili Ntene	Deputy Director
Ms Lene Grobbelaar	Assistant Director

1.2 Attendance – Western Cape Department of Environmental Affairs, Development and Planning

Name	Position
Mr Paul Hardcastle	Deputy Director

1.3 Attendance – Northern Cape Department of Tourism, Environment and Conservation

Name	Positions
Mr Anton Meyer	Principal Environmental Officer
Mr Bronwen Cornelissen	Principal Environmental Officer

1.4 Attendance – Independent Environmental Team

Name	Organisation	Role
Ms Jaana-Maria Ball	ARCUS GIBB	EIA Project Manager

1.5 Attendance – Eskom Holdings Limited

Name	Eskom Division	Role/ Position
Mr Tony Stott	Enterprise Division Nuclear Programmes	Senior Manager (Nuclear Stakeholder Management)
Ms Deidre Herbst	Generation Division Environmental Management	Environmental Manager
Mr Tyrone Singleton	Generation Division Environmental Management	Chief Environmentalist

Due to an administrative error the Eastern Cape Department of Economic Development and Environmental Affairs (ECDEDEA) was unfortunately not invited to this meeting. A separate meeting with the Eastern Cape Provincial Authorities was held on 27 July 2007, during which exactly the same information, as conveyed in this meeting, was conveyed to the participants.

2. WELCOME AND INTRODUCTIONS

Ms Deidre Herbst, Environmental Manager of Eskom Generation welcomed all present and thanked them for attending the meeting to discuss the proposed Eskom Nuclear Power Station (NPS).

3. OBJECTIVES OF THE MEETINGS

By way of introduction, Ms Herbst stated that although informal meetings have been held with the Department of Environmental Affairs and Tourism (DEAT) to informally discuss the EIA for the proposed Eskom NPS and associated infrastructure this was the first formal Authorities Meeting to announce the EIA for the proposed project. Thus this constituted the first formal engagement as part of the Scoping Phase of the EIA process. Hence, this was the first opportunity to introduce the EIA project and the EIA Team and the people that would be engaging with the National and Provincial Environmental Authorities during the EIA process. It was noted that the public consultation process for the EIA had only just commenced.

The primary objectives of the meeting were follows:

- To introduce and provide the Environmental Authorities with an overview of the proposed development by Eskom and to introduce the EIA Team and the relevant Eskom personnel to the Authorities.
- To provide the Authorities with an overview of the EIA process including opportunities available to I&APs at the various stages of the process.
- To provide an opportunity for the Authorities to provide the EIA Team with initial comment, ask questions and raise issues with respect to the proposed NPS.
- To undertake constructive debate and discussion.

Ms Herbst then requested the Project Team to continue with the presentations prepared for the meeting. Ms Herbst informed participants that presentations would last approximately 20 – 25 minutes each. She encouraged the meeting participants to interrupt the presentations for clarification of issues and to raise questions and make comments.

4. ESKOM'S STRATEGIC OVERVIEW - PRESENTATION

The summary of the information presented is provided below. The issues raised and discussed following each presentation are summarised in Appendix 1.

Mr Tony Stott, Senior Manager, Nuclear Stakeholder Management, Eskom Enterprises Division presented a strategic overview. The following sections were covered in the presentation:

- Overview of electricity demand and supply in South Africa
- Primary energy resources and technological options for South Africa
- Major strategic drivers for nuclear power
- The proposed Nuclear-1 NPS

4.1 Overview of electricity demand and supply in South Africa

- From the 1980s through to early 2000s, the growth in demand for electricity followed a trend averaging between 2 and 3 % per annum. However, over the past few years the annual growth in peak demand for electricity has been higher than an average of 4 % per annum.
- The Government's Accelerated and Shared Growth Initiative for South Africa (ASGISA) is aiming for the economy to grow by approximately 6 % per annum into the future. An annual growth of 6 % in the economy implies an annual growth of approximately 4 % in the demand for electricity.
- Eskom planning into the future is therefore based on an average annual growth rate in the demand for electricity capacity of 4 %.

- In 1980, the demand for electricity, the peak demand, was below 20 000 MW. The peak demand has continued to increase compared to previous years; this year the peak demand was just over 36 000 MW (the peak demand was recorded on 5 July 2007 at 36 513 MW).
- At 4 % annual growth in the demand for electricity, the peak demand will increase to just below 80 000 MW by 2025.
- Eskom's net electricity generating capacity is currently just below 40 000 MW. In addition Eskom imports approximately 1000 - 1500 MW of electricity capacity from Cahora Bassa in Mozambique (less when maintenance or repairs are being undertaken at Cahora Bassa or on the transmission lines between Cahora Bassa and South Africa). Eskom will thus need to have added more than 40 000 MW of new power stations to its existing electricity generating capacity in order to be able to meet the projected demand for electricity in 2025.
- Power stations do not last forever. They are maintained, and components can be repaired or replaced when necessary, but eventually it is no longer economically viable to operate, and it becomes more cost effective to shut down the old power station and construct a new power station. Hence in addition to meeting the projected demand, Eskom also needs to prepare for the replacement of power stations that will reach the end of their economic life span after approximately 2025.
- The challenge is to correctly match the supply and demand; economic growth and development will be hampered if the supply of electricity does not match the demand.
- Choosing the best options for electricity generation and the planning for the construction of new power stations must also consider the different types of power stations that are required and their cost (which impacts on the price of electricity), the time taken to construct them, the environmental considerations and their operating characteristics. The total demand for electricity in South Africa is not constant; rather it varies on a 24-hour basis, with peak demand in the early morning and in the late afternoon / early evening. To optimally meet the total demand, it is thus necessary to have both "base load" electricity generating power stations designed specifically to generate electricity continuously at all hours, as well as "peaking" electricity generating power stations designed specifically to generate electricity only during the periods of peak demand. This is achieved by harnessing different energy sources and applying different technologies.
- In South Africa, coal and nuclear power is used for base load electricity generation, while the open cycle gas turbines (using liquid fuel, such as diesel), the two small hydro electric power stations on the Orange River, and pumped storage schemes, are used for peaking and emergency electricity generation.
- In October 2004, the South African Cabinet took the decision that Eskom will be responsible for at least 70 % of the new electricity generating capacity that is required, with Independent Power Producers being responsible for the remaining 30 %.

4.2 Primary energy resources and technological options for South Africa

- **Coal** is the primary energy source for electricity generation in South Africa - approximately 90 % of electricity generation in South Africa is derived from coal-fired power stations. Eskom coal-fired power stations are specifically designed to burn low-grade coal, which otherwise would not be utilised and would be a waste product emanating from the coal mines. South Africa has significant coal resources and hence coal will continue to be used in the future. However, using coal to generate electricity also has its disadvantages: the transportation of coal is very expensive and hence coal-fired power stations are located as close to the mines as possible to maintain their economic viability - this implies that coal-fired power stations are located inland and hence, if wet-cooled, use considerable quantities of scarce water resources, or if dry-

cooled are less efficient and still use quantities (although much less) of scarce water resources; the burning of coal gives rise to pollutants – in particular the burning of coal gives rise to emissions of carbon dioxide (CO_2), a greenhouse gas, which contributes to climate change. Eskom continues to monitor and investigate the progress internationally with the commercialisation of more efficient coal-fired power stations. Eskom is also researching underground coal gasification as a means to generate electricity from coal – a pilot facility is being established in Mphumalanga Province near the Majuba coal-fired power station. Eskom also monitors and participates in international forums investigating the possibility of capturing and storing carbon dioxide emissions.

- **Gas:** South Africa's indigenous resources of natural gas are currently not available in sufficient quantities to fuel power stations – hence the South African Open Cycle Gas Turbines use liquid fuel (e.g. diesel). The Open Cycle Gas Turbines are used to help meet the demand for electricity during peak and emergency demand situations since they are very expensive to operate (the diesel price is linked to the dollar price of oil and also is subject to foreign exchange rates). In 2006/7 Eskom constructed two new Open Cycle Gas Turbines in the Western Cape Province, viz. Ankerlig power station at Atlantis, and Gourikwa power station at Mossel Bay, with a combined capacity of just over 1000 MW. Eskom has submitted the necessary environmental and other applications to extend these two power stations by an additional total 1000 MW. Eskom is continuing to investigate being able to access natural gas from the Kudu gas fields in Namibia, the Ibhubesi gas fields off the west coast of South Africa, the gas fields in Mozambique and liquid natural gas from international markets, to generate electricity in combined cycle gas turbine power plants. If sufficient natural gas becomes economically available (the gas price is also linked to oil prices and subject to foreign exchange rates), the possibility exists to convert the new Open Cycle Gas Turbines to combined cycle gas turbines.
- **Renewable energy: Hydro power:** South Africa is a water scarce country and does not have large rivers for hydro power. Eskom has two hydro power stations on the Orange River, the 360 MW (4 units each 90 MW) Gariep power station and the 240 MW (2 units each 120 MW) Vanderkloof power station. The use of these two stations is restricted to peak and emergency electricity demand situations, subject to the availability of water in the Gariep and Vanderkloof dams. Investigations are in progress for an upgrade at Gariep power station. **Wind energy**: An EIA is currently in progress for a wind energy facility of 100 MW on the West Coast of South Africa (near Vredendal). Wind energy is an important complement to other forms of electricity generation. Since the wind does not blow continuously, and since, apart from pumped storage schemes, which use more electricity than what they produce, large scale storage of electricity is not yet possible, wind energy cannot be relied upon for neither base load nor peaking or emergency electricity generation.
- **Solar energy**: An EIA has been undertaken and an environmental impact report has been submitted to the DEAT for a research and demonstration project for a concentrated solar thermal plant of 100 MW near Upington. Mirrors reflect the sunlight onto a central point. The project aims to research and demonstrate the heating of a molten salt at the central point in an intermediate step before boiling water and creating steam to drive a turbine and generate electricity. In principle the molten salt would retain its heat and hence be able to boil water and create steam after the sun is no longer shining. If all the necessary approvals are obtained, Eskom could start construction of the solar thermal plant in 2008/9. If constructed, it would be the biggest facility of its design in the world.
- **Efficiency programme:** Eskom is continuing to investigate ways to improve the use of electricity. Eskom has a demand-side management and energy efficiency programme target of

3 000 MW by 2012 and 8 000 MW by 2025. 8 000 MW is equivalent to avoiding the construction of two large coal-fired power stations.

- **Importing electricity via the transmission network**: Eskom already imports electricity from neighbouring countries, primarily from the Cahora Bassa Hydro Electric Power Station in the northern part of Mozambique. Between 1000 and 1500 MW hydro power capacity is imported from Cahora Bassa, although some of this (about 300 MW) is sent back to the Southern part of Mozambique via South Africa. Eskom is participating in a project to harness the hydro power potential of the Inga Falls on the Congo River in the Democratic Republic of Congo. This is a long term project, which includes the construction of a very long transmission line from the DRC, through Angola and Namibia into South Africa and Botswana. So as not to become over-dependent on our neighbouring countries for electricity, Eskom will limit the import of electricity.
- **Nuclear:** South Africa is rich in uranium resources which can be used to generate electricity in nuclear power stations. Eskom is thus investigating expanding its nuclear power generation capacity to help meet the future demand for electricity.

It is Eskom's stance that ALL of these primary energy resources need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.

4.3 Major strategic drivers for Nuclear

- Eskom needs new base load electricity generating capacity – only coal and nuclear power can at this stage provide base load capacity
- Climate Change and the contribution made by the burning of fossil fuels such as coal to this phenomenon are gaining an increasing amount of attention, both nationally and internationally. South Africa needs to reduce its emissions of greenhouse gases and nuclear power is one of the options for Eskom to achieve this objective.
- One advantage of nuclear power stations is that, unlike coal-fired power stations, they can be cost-effectively located away from the source of fuel, and hence can be located near the main economic growth centres. Currently, there is significant growth along the coast line (the Cape Town region in the Western Cape, the Port Elizabeth region in the Eastern Cape), and in the Upington/Sishen region in the Northern Cape. Locating power stations (of any kind) near the economic growth centres reduces the amount of electricity that has to be transmitted through the transmission network system and hence reduces the electricity losses incurred when transmitting electricity along long transmission lines.
- All thermal power stations need cooling of the steam used to drive the turbines. If located on the coast, they can use seawater for cooling and not scarce fresh water resources.
- If a coal-fired power station is located on the coast, Eskom would need to transport coal from the coal-fields in Mphumalanga or Limpopo Provinces to the areas where the power station is located. This is not economically viable. A large coal-fired power station of 3600 MW requires approximately 40 000 tons of coal per day when operating at full power. Assuming transportation by rail, that each train wagon can take a load of 80 tonnes, and that each train has 50 wagons, then 10 train loads of coal would need to travel from the coal fields and be off-loaded at the power station every day.
- A nuclear power reactor only requires to be refuelled once every 18 months with approximately 25 – 40 tonnes of fuel, depending on the size of the reactor. The fuel is easily transported to the nuclear power station from the factory where it is manufactured.

- South Africa has more than sufficient uranium deposits to meet the requirements for fuel for the proposed nuclear power station over its entire lifetime.

> ❖ Eskom requires 40,000 megawatts (MW) of additional electricity generating capacity to be constructed in phases over the next 20 years.
>
> ❖ The Eskom Board has approved the **investigation** of up to 20,000 MW of nuclear capacity by 2025. The other 20,000 MW will come out of other generation mixes, e.g. renewables, coal, gas etc.
>
> ❖ Eskom's target for savings associated with demand side management is 3,000 MW by 2012 and 8,000 MW by 2025. 8,000 MW is equivalent to two coal-fired power stations.

4.4 Nuclear Technology Selection

- Koeberg NPS has been safely operating for the past 23 years. The two nuclear reactors at Koeberg are the Pressurised Water Reactor (PWR) technology.
- Eskom, the National Nuclear Regulator (NNR), and the local suppliers of maintenance services are familiar with PWR technology.
- Eskom investigated the different nuclear power station technologies available in the world for large scale power stations and has deemed it prudent to continue with the PWR technology.
- The PWR technology for the proposed new nuclear power station would be a more advanced form compared to the technology used in the existing Koeberg NPS.

4.5 Overview of the proposed nuclear power station infrastructure

A picture of a model of the Koeberg NPS and an aerial photograph of Koeberg were used to provide an overview of the infrastructure that would be required for the proposed NPS. Some of the key features include the following characteristics:

- The footprint of the proposed NPS is approximately 31 hectares.
- There are turbines, intake basin (uses sea water for cooling), administration buildings, transmission yard, engineering building, turbine hall (which consists of a turbine and generator), mechanical workshops, etc.
- Main security fence.
- Restricted area, which require permits to access.
- The conservation area, which is open to the public for recreational activities.

4.6 Regulatory Processes (associated with the nuclear power station)

- The DEAT is the lead environmental authority for the EIA for the proposed NPS. Provincial environmental departments of the Northern, Western and Eastern Cape are commenting authorities. Five different sites are being investigated as part of the EIA.
- Transmission lines are required between the proposed power station and the existing national transmission network to enable the electricity generated by the proposed power station to be

fed into the national transmission network. Separate EIAs will be undertaken for the proposed transmission lines. The EIAs for the proposed transmission lines will be co-ordinated to align as close as possible to the EIA for the proposed nuclear power station.

- An application for a nuclear installation licence will be submitted to the NNR in terms of the requirements of the National Nuclear Regulator Act. The NNR Act provides for the holding of public hearings.
- The NNR and DEAT will ensure that there is synergy between the Nuclear Licensing Process and Environmental Authorisation Process.
- An application to the National Energy Regulator of South Africa (NERSA) for an electricity generation licence will be made at the appropriate time.
- Zoning permits, water permits, disposal of domestic waste, and other authorisations will also be required. The respective applications to the relevant Authorities will be made at the appropriate time.

If all necessary approvals are obtained, construction could start in 2009 or early 2010 with the first unit coming into operation in late 2016.

5. ENVIRONMENTAL IMPACT ASSESSMENT PROCESS - PRESENTATION

The summary of the information presented is provided below. The issues raised and discussed following each presentation are summarised in Appendix 1.

Ms Jaana-Maria Ball, EIA Project Manager, ARCUS GIBB (Pty) Ltd presented an overview of the EIA Process. The following sections were covered in her presentation:

- Project background, namely, the Nuclear Site Investigation Programme (NSIP) that was initiated in the 1980s. The NSIP considered the entire South African coastline and the study was undertaken in three parts, namely, the Eastern Cape, Southern Cape and Western Cape. This study looked at various criteria of the sites, such as hydrology, biotic environment, physical environment, cultural heritage, social and economic aspects. Some of these criteria may have changed since the NSIP was undertaken and these, as well as additional identified aspects, will be considered in the EIA. After the study was concluded, Eskom went about strategically acquiring some land of three of the five alternative sites identified as being suitable. The two sites that are partly owned by Eskom are Bantamsklp and Thyspunt. The Koeberg site is fully owned by Eskom while Brazil and Schulpfontein are not owned by Eskom.
- Purpose of the EIA Process
- Framework for the EIA Process
- Responsibilities of the various EIA role players
- Environmental Impact Assessment
  - Scoping Phase – we are in the project announcement sub-phase of this phase
  - Impact Assessment Phase
- Alternatives: Although the rationale behind the decision for nuclear power to be the chosen generation alternative will be discussed in the Draft Scoping Report (DSR) it is a given that this EIA is for one NPS of the pressurised Water Reactor (PWR) technology type. The plant type will be made known in the Impact Assessment Phase, once negotiations with the potential suppliers have been concluded. The alternatives under consideration are site alternatives, namely the five sites under consideration: Brazil, Schulpfontain, Duynefontein, Bantamsklip and Thyspunt.
- Potential Environmental Impacts both during construction, operation and decommissioning of the proposed NPS.

- Public Participation Process (PPP) - Apart from the EIA, Eskom is running a public awareness programme across the country. Although comment on BID closed on 28 August 2007, I&APs will be encouraged to submit their issues, comments and concerns to ACER throughout the EIA. (Note: Subsequent to this meeting and due to the large public interest shown in the proposed project, the initial Comment Period was extended by an additional five (5) weeks making the closing date 28 August 2007). Ms Ball noted that the presentations delivered by the EIA Team during the project announcement sub-phase of the Scoping Phase are exactly the same as the one posted on the project website, and the same presentation will be delivered at all the public meetings held in this phase. Presentations would be made in the language of the respective audiences. I&APs will have the opportunity to comment on the DSR. At the end of the Comment Period a DSR will be prepared and made available to the public for review and comment. The DSR will be accompanied by an Issues and Response Report (IRR). All I&APs will have an opportunity to review the DSR and to discuss its contents in public meetings, before it is finalised. Closer to the time, advertisements will be placed in the newspapers and letters will be sent to I&APs notifying them of exact details and venues for viewing the DSR and exact details concerning public meetings. Stakeholders who are registered on the project database will be sent an Executive Summary of both the Scoping and Environmental Impact Reports.
- Specialist studies: Ms Ball emphasised that the EIA for the proposed project includes many different specialist studies. Some of the specialists plan to undertake fieldwork in order to make use of the Spring season. The specialists involved are the most experienced specialists in the country and their CVs are available on the project website. Other experienced specialists will review the specialist studies.

6. WAY FORWARD AND CLOSING REMARKS

Ms Herbst stated that all issues raised had been captured and will be included in the minutes, which will be made available to the participants. Ms Herbst thanked the Authorities present for their input and participation and closed the meeting.

7. ISSUES AND COMMENTS RAISED AND DISCUSSED

The table **(pages 13 - 17)** presented below details all issues and concerns, which were raised and discussed at the meeting.

Please note:

- ARCUS GIBB has tried to capture and reflect as accurately as possible all issues raised at various public meetings.
- Should you wish to edit your comments, please advise ACER within two weeks of receiving these minutes.

APPENDIX 1: RECORD OF ISSUES RAISED AND DISCUSSED

Note: Should you as a participant at the meeting not agree to the way in which ARCUS GIBB has captured your issue, please submit your requested changes in writing to ACER within two weeks of receiving this document

No	COMMENT	RESPONSE
1	What issues have been raised during project announcement meetings recently held?	Examples of issues raised in the meetings to date are: • Exclusion zones around the power stations • Emergency planning • Radioactive waste management • Potential impact on tourism, farming activities in the vicinity of the power station, marine life due to sea water being used for cooling • Validity of the original siting studies • Job creation The issues from all the meetings will be captured and included in the scoping report.
2	Is the option of using Open Cycle Gas Turbines (OCGT) as a base load being investigated?	South Africa's indigenous resources of natural gas are currently not available in sufficient quantities to fuel power stations – hence the South African Open Cycle Gas Turbines use liquid fuel (e.g. diesel). The Open Cycle Gas Turbines are used to help meet the demand for electricity during peak and emergency demand situations only since they are very expensive to operate (the diesel price is linked to the dollar price of oil and also subject to foreign exchange rates). It would not be financially viable to run the OCGT's as base load power stations.
3	Has the situation regarding alternative sites changed since the early 1990's?	The NSIP recommendations will be re-evaluated during the Scoping Phase of the EIA and recommendations made for further studies to be undertaken in the Impact Assessment Phase.
4	Are there technical requirements for the proposed NPS to be located at the coast?	The main advantage of locating a thermal power station on the coast is that sea water can be used for cooling. There are technical and infrastructure engineering requirements for the intake of sea water and its subsequent discharge back into the ocean. The actual design depends on the specific site.

No	COMMENT	RESPONSE
5	There was much debate during the Pebble Bed Modular Reactor (PBMR) EIA regarding macro- economics and project financials. How will this aspect be handled in the EIA for the proposed NPS?	An assessment of the potential impacts of the proposed NPS on the local, regional and national economies will be undertaken during the Impact Assessment Phase of the EIA and reported in the EIA Report. Project financial information is confidential and will not be released into the public domain by Eskom.
6	Explain how Eskom (the Applicant) raises money to construct the proposed NPS.	Eskom funds its expansion programme (power stations and transmission/distribution lines and infrastructure) from retained earnings (revenue) and from loans and bonds obtained from national and international financial institutions.
7	Please provide a comparison of the different technologies and plant types considered for the proposed NPS.	For the proposed NPS Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Eskom is considering two plant types, i.e. AP 1000 and EPR. They are both Pressurised Water Reactors. If the AP1000 technology is used, the proposed power station would have three units. If the EPR design is used, the proposed power station would consist of two units. Depending on which of the two designs is chosen, the total station output will be between 3200 and 3500 MW.
8	Potential positive and negative impacts on local, regional and national economy need to be assessed during the EIA.	Comment noted. An EIA is an assessment, which looks at all the potential environmental impacts of a proposed development, both positive and negative. Importantly, an EIA looks at the larger picture, which considers the three primary dimensions of the environment, i.e. social, economic and biophysical.
9	How many alternative sites will be taken into the Impact Assessment Phase of the EIA?	As Independent EIA Consultants we cannot pre-empt the findings and recommendations arising from the Scoping Phase of the EIA. All five alternative sites may be taken into the Impact Assessment Phase of the EIA. However, it is possible they one or more sites may be scoped out.
10	Does this mean that Eskom will effectively banks sites and make a recommendation of one site during this EIA.	This EIA is for one proposed NPS on one of the five sites. However, Eskom's investigation into nuclear power is for up to 20 000 MW. This it is possible that all five sites would eventually be used, subject to the necessary environmental and other authorisations that are required being granted.

No	COMMENT	RESPONSE
11	Statistics are all well and good but public more worried about operating risks	Comment noted. Eskom and South Africa has demonstrated for more than 23 years its ability to manage nuclear power. Eskom operates and manages the Koeberg NPS in accordance with the standards and requirements prescribed by the National Nuclear Regulator (NNR). Koeberg is maintained in accordance with the highest international standards. International peer reviews of the management, operations and maintenance of Koeberg are conducted on a regular basis to provide assurance that Koeberg is following the best practices. The nuclear safety of, and the risk of a nuclear accident at the proposed power station, will be independently assessed by the NNR. The NNR will only issue a nuclear installation licence for the proposed power station if it is satisfied that the risk of an accident is acceptable low. Using Koeberg as an example, the NNR has inspectors permanently based at the power station who monitor the operations and maintenance. The NNR can take away a licence that has already been granted if the NNR feels that nuclear safety is being compromised.

No	COMMENT	RESPONSE
12	How is the National Nuclear Regulator (NNR) made up?	The NNR is the national institution established by the National Nuclear Regulator Act, Act No 47 of 1999, for the protection of the public, property and environment against nuclear damage. The Regulator is governed and controlled in accordance to this Act by a Board of Directors and is operated by an Executive comprising the Chief Executive Officer (CEO) and the staff of the NNR. The Minister of Minerals and Energy is the Executive Authority responsible for the NNR and appoints the NNR Board. The Board consists of up to thirteen directors which include a representative from organized labour, organized business, one person representing communities that might be affected by nuclear activities, an official of the Department of Minerals and Energy, and the DEAT; and no more than seven other Directors. In order to carry out the mandate of the NNR as it is set out in the NNR Act, the NNR staff is structured into the following five divisions: the Power Reactor Division; the Nuclear Technology and Natural Sources Division; the Assessment Group; the Regulatory Strategy Development Division; and Corporate Support Services. Within these divisions, staff of the NNR carries out technical assessment, authorization and compliance assurance functions and provide the necessary infrastructural support for the effective regulation of safety, including nuclear, waste, radiation and transport safety. (reference NNR website www.nnr.co.za)
13	There was an issue with the PBMR regarding a cooperative agreement between the DEAT and the NNR and how information in the Safety Analysis Report (SAR) feeds into the EIA process. How will this be resolved in this EIA?	A cooperative agreement between the NNR and DEAT has been published for public comment. The NNR and DEAT will develop the procedures for the implementation of the cooperative agreement.
14	What is the progress with the Site Safety Investigations for the proposed NPS?	These investigations are in progress. Some of the activities produce data that is required by both the EIA and the Nuclear Licensing processes. Site Safety reports will be produced for assessment by the NNR as part of the nuclear licensing process.

No	COMMENT	RESPONSE
15	Will there be a separate EIA process for the transmission lines?	There will be separate EIAs for the transmissions lines. The EIA process for the transmission lines will find the most environmentally and technically feasible alternative routes for the required transmission lines. The transmission line EIA is being aligned as closely as possible with the EIA for the proposed nuclear power plant to ensure effective decision-making. It is expected that during the next round of public consultation the preliminary findings on the routing of the transmission lines will be available.
16	What have been the changes in the Pressurised Water Reactor (PWR) technology since the Koeberg NPS was built?	Koeberg was designed in the 1970s and constructed in the 1980s, the first unit coming into operation in 1984. The PWR's under consideration for the proposed power station were designed in the late 1990s / early 2000s. These designs have evolved from the early designs resulting in significant advances in safety and economics. The new designs allow for more passive safety features (in contrast to the engineered safety that was a characteristic of the Koeberg design). The efficiency of the modern designs is also higher. The modern PWRs have been designed to much more stringent safety criteria, resulting in the probability and the consequences of incidents and accidents being lower. However, the NNR will determine the requirements for any emergency plans based on a safety assessment of the design of the proposed NPS and the proposed site and environment.

APPENDIX 2: PRESENTATIONS

Eskom's Strategic Planning Overview

Note: The size of this presentation is 4.21 MB.

Nuclear Licensing Process

Note: The size of this presentation is 1.2 MB.

Environmental Impact Assessment (Technical and Public Participation) Process

Note: The size of this presentation is 2.40 MB.

All presentations can either be downloaded on the website (www.eskom.co.za/eia) or requested from ACER (Africa) at nuclear1@acerafrica.co.za or 086 010 4958

APPENDIX 3: ATTENDANCE REGISTER

Please note: Attendance Registers can only be made available upon request