

Our Ref: J27035

14 September 2009

Attention: Mr J Oosthuizen  
Acting Chairman – St Francis Bay Residents  
Association

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**ESKOM ENVIRONMENTAL IMPACT ASSESSMENT (EIA: 2/12/20/944) FOR A PROPOSED NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE: COMMENTS ON THE REVISED PLAN OF STUDY FOR EIA**

Your correspondence to Ms. Jaana-Maria Ball of Arcus GIBB (Pty) Ltd entitled “ENVIRONMENTAL IMPACT STUDY: ESKOM NUCLEAR POWER STATION: PROJECT NO J27035” refers.

Arcus GIBB acknowledges receipt of the above-mentioned letter. We thank you for your valuable comments and your participation in the Eskom Nuclear Power Station (NPS) Environmental Impact Assessment (EIA) process to date. Your questions concerning the Nuclear-1 EIA process have been noted.

Responses to your comments / questions are as follows:

Your comment (1)

We wish to record that we are not happy with the change from the initial terms of reference to the new terms of reference (i.e. a change for scoping alternative to establish Nuclear 1 to accepting that three nuclear sites will now be constructed). The fact that alternatives are not being assessed warrants at least a full revision of the scoping report.

Response (1)

Eskom has indicated their intention to apply for authorisation for all three sites currently been assessed as part of the Impact Assessment. The final decision as to any potential amendments to the current application would depend on the promulgation of the required regulations as well as DEA’s approval of Eskom’s combined application, if and when this is submitted to the Department. Interested and Affected Parties (I&APs) will be informed of Eskom’s decision in this regard and allowed to further comment on this decision. Such a decision, undertaken by the DEA will be made after the Department has considered all information provided to it for consideration, including your comments and concerns.

With respect the consideration of alternatives the following is relevant:

Alternatives have been considered during the Scoping Phase of the EIA, whereby as a result of technical issues two alternatives (Brazil and Schulpfontein) were excluded. The Final Scoping Report was approved by the then DEAT on the 19th of November 2008. Section 2.17.1 of this letter states that “*The Department accepts the exclusion of the Brazil and Schulpfontein sites for further investigation in this EIA process, as they are not technically feasible at this stage. The Department has also however noted that these sites will be considered for future Nuclear projects.*” Thus DEAT was satisfied that three sites were selected for the EIA phase from the original five alternative sites considered in the Scoping Phase based on the rationale provided in the Scoping Report (see excerpt below). DEAT also indicated that they were satisfied with the site alternatives, since DEAT applied their minds to what was reasonable and feasible with respect to the original five alternatives.



The remaining three sites have been taken forward into the Impact Assessment Phase of the EIA for the potential construction of a nuclear power station and subsequently required to be subjected to additional detailed specialist assessments.

During public participation and in related documentation it was communicated that Eskom's longer term plan was to develop a nuclear programme of 20 000 MW and that all three sites, if environmentally feasible, would be utilised. Eskom has notified the public of its intention to apply to the Department of Environmental Affairs (DEA) to have all three sites approved during this process. Therefore although this EIA is for a nuclear power station with a maximum capacity of 4 000 MW, should it be deemed feasible, Eskom would make the necessary applications to the respective government departments to construct additional nuclear power stations on the various sites, which have been identified for nuclear development.

Finally the consideration of alternatives is not only limited to site alternatives nor is it a requirement to continue with the assessment of any alternative once it is deemed not to be feasible as a result of assessments and information derived from the EIA process.

In light of the above, Arcus GIBB considers that site alternatives have been assessed and evaluated. The Draft Environmental Impact Report will continue to evaluate and/or discuss various other alternatives including layout, technologies, plant types and mitigation strategies etc.

#### Your comment (2)

We feel strongly that it is inappropriate to change the scope of the project in the Plan of Study at such a late stage. Further it is irregular for a Plan of Study to make assumptions based on new regulations which have not yet been promulgated. No other assessment in the country would be allowed to make application in this manner and it is completely out of order. We are surprised that a company of your standing would even consider this let alone condone it.

The project is totally different from that originally intended in the scoping report therefore the environmental process should be started afresh.

#### Response (2)

As stated in Response (1) above, Eskom has only indicated their intention to apply for authorisation for all three sites currently been assessed as part of the Impact Assessment. The final decision as to any potential amendments to the current application would depend on the promulgation of the required regulations as well as the DEA's approval of Eskom's combined application, if and when it is submitted. Such a decision, undertaken by the DEA will be made after the Department has considered all information provided to it for consideration, including your comments and concerns.

The current legislation allows Eskom to apply for a combined application in a particular Province. Regulation 385, Section 15(2) states that: *"If an applicant intends undertaking more than one activity of the same type at different locations in the same province, different applications in respect of the different locations must be submitted, but the competent authority may, at the written request of the applicant, grant permission for the submission of a single application in respect of all those activities, whether or not the application is submitted on one or more application forms."*

#### Your comment (3)

Further the assessment of alternative layouts on a particular site is totally different from the original that alternative sites will be assessed.

#### Response (3)

Comment noted – Please refer to response (1).

#### Your comment (4)



- The listed potential adverse impacts must also address potential loss of tourism

#### Response (4)

The Terms of Reference for the Tourism Specialist as laid out in the Revised Plan of Study, includes the assessment of: *“the probable effect on the tourism economy arising from both routine and accident conditions, on the local, provincial and Garden Route regions”*.

#### Your comment (5)

Under beneficial impacts we question the potential creation of a conservation area – this is an area that is frozen from development and may not be managed for biodiversity.

#### Response (5)

Your assumption that the area forming part of the Emergency Planning Zone (EPZ) will not be permitted to be managed as a conservation area are incorrect. Taking the Koeberg nuclear power station as an example the entire owner controlled boundary, which falls within the 5 km radius is currently managed as a conservation area. The conservation area is open to the public and is a popular nature reserve which is utilised by many of the surrounding residents including hiking and biking trails. Should a positive decision be issued by the DEA Eskom wishes to consider the opportunity to create a conservation area.

Furthermore any biodiversity offset areas, where the criteria for the identification of suitable offset areas will be determined by the relevant specialists, will also be managed in such a manner.

#### Your comment (6)

With the change to three nuclear stations we would query whether scoping has taken into account the disposal of waste from the full programme as well as the related infrastructure.

#### Response (6)

The disposal of waste was discussed in the Scoping Report. Refer to section 4.8 *“Radioactive Waste (Radwaste)”*.

The disposal of non radioactive and radioactive waste will be discussed in the Environmental Impact Report as well as the Environmental Management Plan (EMP). Although such discussions will occur with specific reference to the respective sites the total potential amount of radioactive waste should all three sites be developed will be discussed.

Waste disposal and transportation will be further addressed in the EIR (as requested in DEAT letter dated 19 November 2009).

With respect to the various streams of radioactive waste, radioactive waste management falls under the jurisdiction of the Minister of Minerals and Energy in terms of the Nuclear Energy Act, and is also subject to a licensing process from the NNR.

#### Your comment (7)

It would seem that an assessment of the related infrastructures is missing from the PoS.

#### Response (7)

Associated infrastructure is discussed in Chapter 4 of the Final Scoping Report, and includes: a fuel building; reactor building; safeguard building; diesel building; turbine building; waste building; nuclear auxiliary building; the electrical building; access building and the office building.

The following additional infrastructure will or could potentially be required: internal road network as well as the potential for upgrading of existing roads in or around the proposed site; pipelines, for example water and



sewer; transmission network including substations and power lines; construction village; cooling water intake basin and outflow structure; sewage treatment facilities; desalination plant; contractors yard for laydown of materials and other equipment; and security infrastructure.

The EIA application covers all activities identified above.

#### Your comment (8)

We need to know where the transmission lines will be located and their impacts, waste disposal and transport routes to disposal sites, housing associated with the construction and operation phases, impact of movement of people during the construction phase and settlement after construction.

#### Response (8)

The EIAs for the Transmissions Lines for the Bantamsklip, Thyspunt and Duynefontein sites constitute separate EIAs. I&APs are invited to visit the various sites for the three Transmission Line EIAs on [www.eskom.co.za](http://www.eskom.co.za) and register as I&APs for these particular EIAs. The identification of significant issues to be addressed in the Tx Line EIAs, as well as the assessment of potential impacts can be obtained by referring to the Tx Line Scoping and Impact Assessment Reports, which are also available on the website referred to above. Cumulative impacts will be investigated in both the EIA process for the transmission power lines as well as the EIA for the Nuclear-1 power station.

Waste disposal and transportation of waste will be covered in the Nuclear-1 EIA.

In terms of your query relating to housing, the Terms of Reference for the Social Specialist as laid out in the Revised Plan of Study, includes the prediction of the: *“social impact of large-scale, uncontrolled influx of unemployed and unskilled job-seekers; the likelihood of their remaining in informal settlements; the pressures arising on health, educational, housing, police and other services; and responsibility for mitigation”*.

A village to accommodate staff could potentially form part of the “associated infrastructure” for the nuclear power station. This will be assessed as part of the Impact Assessment Phase of the EIA.

#### Your comment (9)

From the inception of the original scoping report, confusion has arisen as to which of the five sites are being referred to and indeed a number of individuals have commented that this seems to have been done only to muddy the waters further. Indeed some of your own reports even confused the sites!

#### Response (9)

The original application<sup>1</sup> submitted to the DEAT in May 2007, and the amended application dated July 2008, was an application to commence with an EIA process for the proposed construction, operation and decommissioning of a single NPS, referred to as Nuclear-1. During the Scoping Phase of the environmental authorisation process, five sites were assessed as alternative sites and were compared in order to identify a single preferred site for the location of Nuclear-1. As discussed in various responses above, the Scoping Report concluded that Duynefontein, Bantamsklip and Thyspunt were considered to be feasible to be taken into the Impact Assessment Phase of the EIA, wherein full detailed assessments are to be conducted on all three sites

The Revised Plan of Study for EIA serves as a mechanism to communicate that Eskom intends to amend the original application for environmental authorisation submitted to the DEAT in May 2007, and amended again in July 2008. The intended changes pertain to Eskom’s intended decision to pursue their strategy to develop a fleet of Nuclear Power Stations (NPSs), as originally identified during the public participation meetings relating to the scoping report. It is Eskom’s intention that the amended application comprises of a combined

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<sup>1</sup> The submission of an application to the competent authority is the first step in the EIA process. The application is made in order to register the project with the competent authority and obtain permission to proceed with the Scoping and Detailed Impact Assessment phases of the EIA process.



application for environmental authorisation to develop three NPSs on all three sites regarded as suitable for further consideration during the detailed Impact Assessment Phase of the environmental authorisation process.

If there are any specific examples where the sites have been confused in the Scoping Report or Plan of Study for EIA please bring them to Arcus GIBB's attention immediately.

Your comment (10)

In view of the above we believe that full new EIAs should be undertaken for each of the sites involved and await your comments.

We reserve the right to take this matter further if our request is not followed.

Response (10)

Your comments have been noted. See Response (2) above.

In conclusion, the project team would like to assure you that Interested and Affected Parties comments are important to us and that your continued involvement in this process as an I&AP is valued. Your comments/questions will be captured in the Draft EIR that will be placed in the public domain for comment.

Please do not hesitate to contact us at any stage should you require any additional information regarding this proposed project.

We thank you for providing us the opportunity to respond to these questions and look forward to your ongoing involvement in the project.

Yours sincerely  
For and on behalf of Arcus GIBB (Pty) Ltd

Jaana-Maria Ball  
EIA Project Manager