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Attention: Samantha Ralston
For: Manager (Scientific Services) - CapeNature

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

Your correspondence to Ms. Bongzi Shinga of ACER (Africa) entitled "Re: Revised Plan of Study for Environmental Impact Assessment for Proposed Eskom Nuclear Power Stations and Associated Infrastructure" 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)

CapeNature would like to thank you for the opportunity to comment on the above report and wish to make the following comments. Please note that our comments should be read in conjunction with our previous comments dated 14 March 2008.

Given the potential for highly significant negative impacts on the environment at all three of the proposed sites, CapeNature believes that it is vital that a wide range of alternatives should be investigated to help ensure that the best practicable solution is found. We are therefore extremely concerned that it has been proposed that site alternatives will not be perused. We strongly urge that site alternatives are considered in this assessment process as this would be in the spirit of the principles of the National Environmental Management Act (Act 104 of 1998).

Response (1):

Your comment is noted.

In light of the Draft EIA Regulations of February 2009 (specifically Regulation 15(2) of General Notice No. 165 of 2009) Eskom has stated the utility's intention to amend the existing application to include all three



sites currently being investigated as part of the Impact Assessment Phase of the EIA. Further during the Scoping Phase five (5) alternative sites were considered namely, Schulpfontein, Brazil, Thyspunt, Bantamsklip and Duynefontein. The Schulpfontein and Brazil sites were excluded during the Scoping Phase. The Final Scoping Report was approved by DEAT on the 19th of November 2008. Section 2.17.1 of this letter of approval from DEAT 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.”

As is clear above, the rationale for not considering Brazil and Schulpfontein has already been approved by DEAT. 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 (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.

Furthermore section 8.8.2 of the FSR states the following as rationale for the exclusion of the Brazil and Schulpfontein sites:

“Thus, the Brazil and Schulpfontein sites require the construction of new power corridors and the exportation of the majority of the power to areas of demand given the limited local demand (Figure 78). Thus, the Brazil and Schulpfontein sites are deemed unfeasible for the proposed NPS based on the following reasoning:

- Optimal, strategic and cost effective utilisation of existing infrastructure associated with the Duynefontien, Bantamsklip and Thyspunt sites, with respect to local integration and exportation of power via existing power corridors;
- Prevention of lengthy time delays associated with the authorisation and construction of the new power corridors applicable to the Brazil and Schulpfontein sites, which will prevent Eskom from providing the power within the required timeframes;
- Unnecessary environmental impacts associated with the construction of new power corridors given that there is existing infrastructure; and
- Cost implications associated with the development of new power corridors”

It is clear that 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 remaining three sites have been taken forward into the Impact Assessment Phase of the EIA as they were deemed feasible following the Scoping Phase of the EIA for the potential construction of a nuclear power station, and subsequently required to be subjected to additional detailed specialist assessments.

Your comment (2)

We are confused that the report indicates that among the reasons for dismissing the two alternative sites (Brazil and Schulpfontein) is the lack of existing power corridors. This is also an issue with the proposed facility at Bantamsklip, yet this site has not been dismissed. Indications are that the new corridor(s) leading from Bantamsklip are likely to have high and irreversible negative impacts on biodiversity.

Response (2):

With respect to the Schulpfontein and Brazil sites Eskom would require to construct extensive power corridors owing to the absence of any significant load centres in the Northern Cape. The engineering of such corridors coupled with the various reasons identified above resulted in the two sites not being suitable for Eskom’s initial nuclear programme (Nuclear -1, -2, and -3). Conversely, with respect to the remaining three



sites, namely Duynefontein, Bantamsklip and Thyspunt load centres already exist as well as the required power corridors. The issue is therefore not the construction of new corridors but rather the local integration of the networks.

Section 8.8.2 of the FSR states the following as rationale for the exclusion of the Brazil and Schulpfontein sites:

“Thus, the Brazil and Schulpfontein sites require the construction of new power corridors and the exportation of the majority of the power to areas of demand given the limited local demand (Figure 78). Thus, the Brazil and Schulpfontein sites are deemed unfeasible for the proposed NPS based on the following reasoning:

- *Optimal, strategic and cost effective utilisation of existing infrastructure associated with the Duynefontein, Bantamsklip and Thyspunt sites, with respect to local integration and exportation of power via existing power corridors;*
- *Prevention of lengthy time delays associated with the authorisation and construction of the new power corridors applicable to the Brazil and Schulpfontein sites, which will prevent Eskom from providing the power within the required timeframes;*
- *Unnecessary environmental impacts associated with the construction of new power corridors given that there is existing infrastructure; and*
- *Cost implications associated with the development of new power corridors”*

The 2006 EIA Regulations promulgated in terms of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998) require that the various alternatives considered are reasonable and feasible. Based on the information contained above, it is clear that Brazil and Schulpfontein were neither reasonable nor feasible for inclusion in this EIA process.

With specific respect to the Bantamsklip site there is an existing power corridor via the Kappa, Bacchus and Muldersvlei substations. The exclusion of the Brazil and Schulpfontein sites was motivated in terms of the length and cost implications of the power corridors that would have to be constructed. These sites require the exportation of the majority of the power to areas of demand given the limited local demand. The transmission of the power from Brazil and/or Schulpfontein would entail the construction of a power corridor ranging between 1 400 and 1 600 kilometres in length. Transportation over long distances would result in higher power losses and would also require a significant financial investment.

Any potential impacts on the biodiversity will be assessed as part of the Transmission EIA.

Your comment (3)

As highlighted in our previous comments, we urge that the more detailed biodiversity assessments that will form part of the next stage of the EIA process these studies should be thorough and rigorous. To this end we recommend that the Fynbos Forum’s Terms of Reference for the Consideration of Biodiversity in Environmental Assessment are used to help guide the scope of these assessments. These should be used to inform the minimum requirements for assessment.

Response (3):

Your comment is noted. The Fynbos Forum’s Terms of Reference for the Consideration of Biodiversity in Environmental Assessment will be brought to the attention of the Faunal and Botanical Specialists.

Your comment (4)

We also urge that the environmental impacts assessments look at the potential impacts of all associated activities including wastewater treatment facilities, pipes, roads, borrow pits, powerlines, associated industries and additional housing. We are, for example, extremely concerned that by assessing the



powerlines and nuclear facilities separately the full impacts of the proposed activity will not be fully comprehended. The powerlines are inextricably linked to the nuclear facility; one is not necessary or viable without the other. CapeNature is extremely concerned about the impacts of the proposed powerlines associated with the Bantamsklip site as it is almost certain that these will lead to the unacceptable loss of irreplaceable biodiversity. Unless alternative routes can be found that will have impacts on biodiversity of within acceptable limits, CapeNature cannot support the location of a nuclear facility at Bantamsklip. We have attached our comments submitted on this draft Scoping Report for the Bantamsklip powerlines for your information.

CapeNature reserves the right to revise initial comments and request further information based on any additional information that might be received.

Response (4):

Your comment is noted. The complexity of a nuclear power station EIA is such that the quality of the process would be compromised if there was an attempt to combine an extensive linear project with it.

With specific reference to cumulative impacts, each of the EIAs will consider cumulative impacts on all issues specific to the respective EIA. Every attempt has been made to run the two processes as close to parallel as possible. In order to facilitate the flow of information across the two processes. Although each EIA will focus on assessing the specific issues related to the respective EIA issues pertinent to the corresponding EIA will be discussed in the nuclear sites EIA as well as the transmission line EIA

The decisions for each EIA are not dependent on each other. A positive or negative decision on the sites EIA will not guarantee a similar decision in the Tx EIA.

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 released to the public for review and 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