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Our Ref: J27035

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Attention: Mr Rob Fryer
Manager – Overstrand Conservation Foundation

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. Bongi Shinga of Acer (Africa) entitled “*ESKOM NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE (Environmental Impact Assessment EIA 12/12/20/944) REVISED PLAN OF STUDY for IMPACT ASSESSMENT*” 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):

Thank you for the opportunity to make comment on the revised plan of study. The Overstrand Conservation Foundation’s (OCF) comments are as follows:

CONSOLIDATION OF EIAs

The OCF does not in principle object to the proposed combination of the EIAs for the proposed Duynefontein, Bantamsklip and Thyspunt sites. The OCF strongly objects, however, to the statement made in para 2.3 of the above referenced revised plan document that “Site alternatives were considered during the Scoping Phase of the environmental authorisation process.” and that “During the EIA process site alternatives will not be pursued since it is Eskom’s intention to sequentially construct NPSs on each of the (3) following sites:”

The implications of this statement are that, before the specialist studies have been conducted and evaluated:

- the three sites are all deemed to be the most suitable sites available for the proposed NPSs and
- there are no more suitable uses for the sites than the development of the proposed NPSs.

The OCF contends that Bantamsklip in particular is not a suitable site and that there are alternative applications for that site that are in the national best interest.

Response (1):



Alternatives sites have been considered during the Scoping Phase of the EIA, whereby as a result of technical issues two alternative sites (Brazil and Schulpfontein) were excluded from further investigation in the Impact Assessment Phase of the EIA. The remaining three sites have been taken forward into the Impact Assessment Phase for the potential construction of a nuclear power station and subsequently required to be subjected to additional or 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. Throughout the public participation process it has been communicated that the Eskom Board had approved the investigation of providing 20 000 MW of nuclear power. The Nuclear-1 EIA forms part of such investigations. Eskom has notified the public of its intention to apply to 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.

Based on the Final Scoping Report it was concluded that the three sites (Bantamsklip, Thyspunt, and Duynefontein) were, based on information obtained during Scoping, deemed to be potentially feasible for the future development of a nuclear power station i.e. no fatal flaws were at that date identified which would prevent the sites further consideration and assessment as part of the impact assessment phase. Such a conclusion as well as Eskom's intention to apply for the construction, operation and decommissioning of a nuclear power station all sites does not guarantee that the DEA will issue a positive authorisation for all three sites.

Finally alternative suitable uses for the sites will still be considered in the Impact Assessment Phase of the EIA by the various specialists.

Your comment (2):

There will be serious international repercussions associated with building a nuclear power station, associated infrastructure and transmission lines on a registered national heritage site and in a location that is globally recognised as being a biodiversity hot spot of international importance both from a terrestrial and marine perspective. The Bantamsklip area falls within the internationally funded Agulhas Biodiversity Initiative project area and is earmarked for incorporation into a national park with an associated marine protected area. This alternative has international support and must be seriously considered as an alternative to the site being used for a proposed nuclear power plant which can be located in less sensitive areas.

Response (2):

Your comments regarding the heritage importance of the Bantamsklip site is noted. A suite of specialist studies will be undertaken in the Impact Assessment Phase of the EIA. Arcus GIBB and the DEA are aware that the Bantamsklip site falls within the Agulhas Biodiversity Initiative. Section 2.4.7 of DEA Letter of Approval of the Final Scoping Report (FSR) states that *"The Bantamsklip Site is a Protected Area, as well as a Natural Heritage Site and falls within the Agulhas Biodiversity Initiative. Comments from SANParks, CapeNature and DEA Protected Areas must be included in the EIR."*

All issues pertaining to such concerns will therefore be included and fully assessed in the EIR.



Your comment (3):

The OCF further contends that the consideration of the environmental impact of the power plants separately from the environmental impact of the associated transmission lines is fundamentally flawed. A single EAP should be tasked with the integration of the recommendations resulting from the specialist reports relating to the proposed nuclear power plants and with the associated power transmission lines so that an overall recommendation is made to the authorising authority for the total project proposed at each site. This aspect is not dealt with in either the Revised Plan of Study for Impact Assessment for the nuclear power station EIA nor in those for the associated transmission lines.

Response (3):

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. A similar approach was followed for the Eskom coal fired power stations which are currently under construction.

Your comment (4):

ESTABLISHING WORLD BEST-PRACTICE FOR LOCATING A NUCLEAR POWER STATION IN AN INTERNATIONALLY SIGNIFICANT BIODIVERSITY HOT-SPOT

The environmental issues identified during the scoping phase (para 3) do not identify the need to show that other equivalent nuclear power stations have been successfully built and operated in internationally significant sensitive and threatened biodiversity hotspots. This must be addressed.

The Bantamsklip area in which the proposed nuclear power station is to be located and through which the proposed transmission lines will pass forms a key part of the Cape Floristic Kingdom, internationally recognised as a biodiversity hot spot that is under threat. The marine biodiversity along the Bantamsklip coastline is also internationally recognised as unique and of international significance, particularly for the breeding of whales and sharks and African penguins.

The EIA needs to include a study to demonstrate that an equivalent nuclear power station has been successfully located and operated in a biodiversity hot spot of similar sensitivity to that of the Cape Floral Kingdom and the marine environment along the Bantamsklip coastline without compromising the integrity of those areas. The study needs to identify international best practice for successfully locating nuclear power stations and transmitting electrical power through threatened biodiversity hot spots and show how this best practice must be applied to the specific circumstances in the Bantamsklip area.

Response (4):

As indicated, previously, Arcus GIBB is aware of the sensitivities concerning the Bantamsklip site. All biodiversity and marine issues will be fully assessed in the Impact Assessment Phase of the EIA. Further, this proposed project has unique aspects which will be considered by specialists, each specialist will determine potential impacts and their significance as well appropriate mitigation.

Your comment (5):

IMPACT ASSESSMENT METHODOLOGY AND CRITERIA

The Western Cape Provincial Spatial Development Framework (WCPSDF) sets out the objectives, policies, strategies and guidelines that are to be used for the planning of developments across the Western Cape. This WCPSDF is consistent with the National Spatial Development Perspective issued by the President's Office and was drawn up with full public participation. It (and the subordinate Overstrand Municipal Spatial Development Framework) is the only document that has had wide public input that can be used as a reference in matters relating to the planning of development.



The impact assessment methodology and criteria set out in the Revised Plan of Study for Impact Assessment makes no reference to the WCPSDF and completely ignores the objectives, policies, strategies and guidelines it contains. This is not acceptable to the OCF and must be addressed in the Revised Plan of Study.

Specialist studies must all draw their conclusions and make their recommendations in terms of the contents of the WCPSDF and this document must form the basis upon which the Department of Environment and Tourism makes its decisions about the impact upon the environment and sustainability in the area.

If any other basis other than the WCPSDF is going to be used to decide the impact of the proposed nuclear power station and associated transmission line specialist reports, the public must be given opportunity to participate in the process of drawing up these criteria.

The OCF sent a letter (attached) on 2009-04-14 to the Assistant Director, Parastatals (Ms Lené Grobbelaar), Department of Environmental Affairs & Tourism (DEAT) in which it asked for clarification of DEAT's decision-making criteria. This letter was copied to ACER and ARCUS GIBB. No reply has been received from any of the recipients up to now.

The impact assessment criteria and rating scales and the convention for assigning significance ratings, set out in Tables 2 and 3, need to specifically require that a negative / high rating be assigned for any aspect for which inadequate scientific evidence exists to justify using a rating that is more favourable to the implementation of the proposed project. This is demanded on the basis of the obligation in environmental law to apply the "precautionary principle."

Response (5):

Your comment has been noted. The objectives, policies, guidelines and strategies contained within the Western Cape Provincial Spatial Development Framework (WCPSDF) will be considered as part of the Impact Assessment Phase of the EIA.

The impact assessment methodology and criteria contained in the Revised Plan of Study for EIA is standard methodology that meets the requirements of relevant guidelines and legislation and that the competent authorities have previously approved.

With respect to the specialists, their conclusions and recommendations will be based on their expertise, experience and knowledge, which will include relevant guidelines applicable to the three sites.

Your comment (6):

FEASIBILITY OF THE REVISED PLAN OF STUDY FOR IMPACT ASSESSMENT

The OCF notes that internationally the implementation of nuclear power plant projects have neither met time nor cost budgets and have run into serious technical difficulties due to inadequate global engineering capacity. We also note that ESKOM proposes in Table 1 that the construction phases of Nuclear-1, -2 & -3 will overlap not only with each other but with the proposed construction phase of the proposed pebble bed nuclear demonstration unit. No other country, to the OCF's knowledge, has successfully embarked upon such an ambitious nuclear power plant building programme and succeeded.

The OCF requests that the feasibility of the programme be studied as part of the revised plan of study for the impact assessment and that the socio-economic impact of a protracted construction and commissioning phase be made.

Response (6)

As indicated in the referenced Table 1 in the Revised Plan of Study for EIA, roll out dates are currently envisaged, based on the national electricity demand forecast, availability of funds and construction lead times of potential vendors. These dates may possibly shift in future.



The feasibility of the proposed roll out plan is not considered to be part of this EIA but rather forms part of the nuclear licensing and electricity planning processes as managed by the NNR and NERSA, respectively. Such processes will be required to consider the availability of skills and resources within the context of South Africa's energy mix and demand. These processes are required to involve public participation and as such you are encouraged to engage the respective government departments

Your comment (7):

SUMMARY

The OCF accepts in principle the proposed consolidation of EIA's for the 3 proposed nuclear power stations. We reject the contention that this combination proposal and/or the work done in the scoping phase so far makes redundant the examination of alternatives. The EIR must deal with the issues relating to the international significance of the Bantamsklip area being a globally important terrestrial and marine biodiversity hotspot that is earmarked for inclusion into a national park with an associated marine protected area.

Response (7)

Refer to Responses (1) and (2).

Your comment (8):

The revised plan of study does not address the need for a single EAP to integrate the recommendations of the proposed combined nuclear power plant EIA with those produced by the associated transmission line EIAs. This is viewed as critically important.

Response (8)

Refer to Response (3).

Your comment (9):

The EIA needs to include a study to demonstrate that an equivalent nuclear power station has been successfully located and operated in a biodiversity hot spot of similar sensitivity to that of the Cape Floral Kingdom and the marine environment along the Bantamsklip coastline without compromising the integrity of those areas. The study needs to identify international best practice for successfully locating nuclear power stations and transmitting electrical power through threatened biodiversity hot spots and show how this best practice must be applied to the specific circumstances in the Bantamsklip area.

Response (9)

Refer to Response (4).

Your comment (10):

Specialist studies must all draw their conclusions and make their recommendations in terms of the contents of the WCPSDF and this document must form the basis upon which the Department of Environment and Tourism makes its decisions about the impact upon the environment and sustainability in the area.

Response (10)

Refer to Response (5).



Your comment (11):

The impact assessment criteria and rating scales and the convention for assigning significance ratings, set out in Tables 2 & 3, need to specifically require that a negative / high rating be assigned for any aspect for which inadequate scientific evidence exists to justify using a rating that is more favourable to the implementation of the proposed project. This is demanded on the basis of the obligation in environmental law to apply the “precautionary principle.”

Response (11)

Refer to Response (5).

Your comment (12):

The Revised Plan of Study for Impact Assessment now envisages the overlapping of the construction phases of the 3 proposed nuclear power stations and these projects will overlap with the construction phase of the proposed pebble bed reactor demonstration plant. There needs to be a feasibility study and impact assessment of the cumulative effect of these given that no other country has successfully embarked upon such an ambitious nuclear power plant building programme.

Please acknowledge receipt of this submission.

Response (12)

Refer to Response (6). The acceptance of the OCF’s valuable submission was acknowledged by ACER Africa on 23 and 26 June 2009.

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 in due course.

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