



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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Dear Ms Ball

APPLICATION FOR ENVIRONMENTAL AUTHORISATION R386 AND R 387: PROPOSED CONVENTIONAL NUCLEAR POWER STATION (NUCLEAR 1)

The final Plan of Study for Environmental Impact Report (POS for EIR), dated September 2009 and received by the Department on 14 October 2009 refers. You have submitted this document to comply with the Environmental Impact Assessment Regulations, 2006.

The Department has evaluated the submitted documents and is satisfied that the documents comply with the legal requirements. The final POS for EIR is hereby accepted by the Department in terms of regulation 31(1)(a) of the Environmental Impact Assessment Regulations, 2006 subject to the following conditions / comments:

1. General:

- 1.1 The POS for EIR is poorly structured and does not facilitate evaluation against the six specific requirements in the Scoping Report Acceptance letter of this Department dated 19 November 2008, nor does it highlight or provide any rationale for the omission or addition of information (with the notable exception of the inclusion of Nuclear 2 and Nuclear 3 and the implications of this in terms of the consideration of alternatives).
- 1.2 DEA recommends that in future, the EAP provide a detailed response to each condition or issue raised or provide a cross reference table indicating where it is being dealt with within the applicable document.
- 1.3 Other alternatives: The revised POS for EIR is not clear about what types of alternatives will be assessed in the EIA other than plan layout options on the various sites.
- 1.4 Decommissioning: Impact methodology is presented for the construction and operation phases of the development. The decommissioning phase of the development has been disregarded. The consequences for future land use options around the sites and the economic impacts related to the decommissioning phase must be assessed.

- 1.5 NNR and DEA agreement: A clear indication must be provided in the EIR with regards to how the agreement between the NNR and DEA will work as well as the responsibilities of these two parties. This agreement has also not been included in the revised POS for EIR.
 - 1.6 The revised POS for EIR equates disruption of terrestrial ecological processes with loss of habitat, but the disruption of ecological processes is far more complex than that.
 - 1.7 Associated infrastructure such as transport, harbours and housing are not included in the revised POS for EIR.
 - 1.8 Specialist studies must be undertaken with a strong element of ground-truthing and must be done in the appropriate season.
 - 1.9 SANParks, the Baviaanskloof Mega-Reserve Management Authority and the provincial Parks Boards must be included as stakeholders in the EIA process.
2. Six specific requirements of DEA letter dated 19 November 2008
- 2.1 Condition 3.1 (*"The lack of clarity regarding which issues will not be considered further in the EIA phase and the lack of a detailed rationale for their exclusion is of concern. The EAP must ensure that all issues raised by I&APs that have not been robustly screened out during the scoping process are addressed in the EIR."*)
DEA will accept the scope of work based on the understanding that all issues raised during the scoping will be comprehensively addressed by the EAP.
 - 2.2 Condition 3.2 (*"The specialist baseline studies presented in the SR lack focus and are not considered adequate. The TOR for each specialist for the Scoping Phase should have revolved around the refinement of the TOR for the full study to be undertaken during the EIR phase."*)
DEA still does not consider the specialist terms of reference adequate to understand what will be investigated to what level of detail, using what methods and how the impacts and mitigation measures will be evaluated. DEA reserves the right to request further information, or additional studies based on different methods.
 - 2.3 Condition 3.3 (*"The key impacts identified during the Scoping process have not been indicated in the POS for EIR. A list of these key impacts and how they will be addressed in the EIR must be included in the revised POS for EIR."*):
DEA has the same comment as per 2.1 above.
 - 2.4 Condition 3.4 – 3.6 (All these three conditions relate to the assessment of the human health risks associated with radionuclide emissions and modelling.) The clarification requested in these conditions was not indicated in the revised POS for EIR. This must be addressed in the EIR.
3. Specific comments on revised POS for EIR:
- 3.1 Figure 1 in the revised POS for EIR must be amended in the EIR to clearly show where in the process the study currently is, and all of the opportunities for public comment.

- 3.2 The EIR must clearly differentiate between the existing application and the possible future applications for Nuclear 1, 2 and 3, as to ensure that no confusion is experienced by the I&APs.
- 3.3 The detailed assessment in the EIR should be limited to construction and operational phases. However, the EAP should include a description of the decommissioning options, together with the most likely option, and require each specialist to provide a strategic level assessment of the likely impacts or risks, together with any conceptual mitigation measures or studies that may be required in future.
- 3.4 Section 3.2: The implications of sediment disposal should be added to the scopes of work as applicable.
- 3.5 Section 4.1 and 4.2: A construction category should be added to the duration criteria and the text describing the method and table with the rating scales should be aligned.
- 3.6 Section 4.2.8: The cumulative impacts of the associated infrastructure of the proposed NPS must be included in the EIR.
- 3.7 Section 4.2.11: DEA suggests that mitigation measures describe "best practice" and then based on the degree of benefit, cost, technical availability, or other criteria, Eskom can commit to implement specific mitigation measures or provide a rationale on why they are not able to implement the mitigation measures.
- 3.8 Section 4.3: The proposed public participation is supported, but thematic workshops where stakeholder groups can engage directly with the specialists are recommended.
- 3.9 Section 4.4: In addition to site layouts, alternatives relating to seawater intake and discharge systems, type of nuclear reactor, the disposal of sediment, the provision of potable water, the location of the construction and permanent accommodation and access roads should be considered.
- 3.10 Section 4.5:
 - 3.10.1 All studies should be contextualized on a regional basis, in order to support the assessment of significance of the impact over-and-above the relative assessment of certain impacts associated with site layouts.
 - 3.10.2 The EAP should include a town planning specialist, as well as explicitly task the economic, social, human health risk, agricultural, noise, tourism, site control and emergency response specialists to assess the externalities associated with any possible direct or indirect restriction on land use.
 - 3.10.3 The transport, site control and emergency response terms of reference should be clarified both in terms of the issues to be addressed as well as the approach. Furthermore, any areas of overlap with the NNR process should be made clear.
 - 3.10.4 Nuclear waste management: The issue of nuclear waste handling, management, storage and disposal is not covered by the specialist studies.

- 3.10.5 An Avifaunal study be added to the specialist reports and the ecological experts must evaluate the total ecological impact after the separate studies have been undertaken. This will ensure that the impact on ecological processes will also be determined. The impact on the potential protected area expansion plans for the areas should be considered.
- 3.11 Section 4.5.4 (Dune Geomorphology): A study on the ecosystem functioning of the dune systems must be included. This must take into consideration the additional economic loss to coastal communities if the dunes are further stabilised and vegetated dunes are not cleared. This is of special importance to the Thyspunt site.
- 3.12 Section 4.5.6 (Floral): The vegetation study needs to include ground-truthing of the desktop study.
- 3.13 Section 4.5.7 (Fauna): This study includes penguins and cormorants. The study of these species should preferably form part of the avifaunal study and / or marine studies. Desktop studies for the possible occurrence of and ground-truthing for, particularly red data and listed species should be done.
- 3.14 Section 4.5.12 (Marine Biology):
- 3.14.1 Impacts on the penguins should also form part of the marine study, as this is where their food supply is situated.
- 3.14.2 The proposed establishment of predictable consequence of sea-temperature rises on all forms of marine life should not only look at the impact on squid spawning, but on the whole food chain and its effect on especially red data and listed species. This should include the effect on the cormorant and penguin populations. The impact of harbours (related to the project) on the marine ecosystems should also be identified.
- 3.14.3 The marine ecological study, with specific reference to the extent of the habitat change should also look at the resultant expected impact on Marine Protected Areas (MPAs).
- 3.15 Section 4.5.12 and 4.5.13: Editorial errors should be addressed as the approach and content of the EIR will be evaluated against the revised POS for EIR.
- 3.16 Section 4.5.13 (Economic): The economic impact should include the impact of disruption of ecosystem services to the area, especially to marginalized communities.
- 3.17 Section 4.5.14, 4.5.15, 4.5.17: The EAP must ensure that the social and public participation processes are integrated and must ensure that all impacts are assessed to the requisite level of detail by the suitably qualified and experienced specialists.
- 3.18 Section 4.5.21 (Transport): Transport requirements of waste disposal and the identification of new infrastructure needed, should be evaluated in the light of the resultant impact on biodiversity.

You can now proceed with the EIA process required in terms of the Environmental Impact Assessment Regulations, 2006. You are hereby reminded that the activity may not commence prior to an environmental authorisation being granted by the Department.

Yours sincerely



Ms Joanne Yawitch
Deputy Director-General: Environmental Quality and Protection
Department of Environmental Affairs
Date: 19/01/10