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Navrae Enquiries Imibuzo

Alvan Gabriel/Tammy Baudains

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Departement van Omgewingsake en Ontwikkelingsbeplanning Department of Environmental Affairs and Development Planning ISebe leMicimbi yeNdalo esiNgqongileyo noCwangciso loPhuhliso

The Director
Department of Environmental Affairs and Tourism
Private Bag X447
PRETORIA
0001

Attention: Ms. N. Ntene

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Dear Madam

COMMENTS: DRAFT SCOPING REPORT FOR THE PROPOSED ESKOM NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE.

The above document dated January 2008 and received by the Department on 30 January 2008 refers.

The Department would like you to note that the comments on the Draft Scoping Report ("DSR") below are preliminary and extensive comment will be provided on the Final Scoping Report. The Department does, however, appreciate the opportunity to review the DSR at this early stage in the Environmental Impact Assessment ("EIA") process. In addition, this Directorate would like to request that you submit two copies of all future documentation on which this Directorate is to provide comment since the alternative sites, in the Western Cape Province, that have been proposed for the nuclear power station span two administrative regions in the Directorate. Two case officers, one from each region, will therefore provide input into a joint comment on these sites and will both require access to the documentation at the same time. The two copies sent to the Directorate should be marked for the attention of Ms Tammy Baudains (Region B1) and Mr Alvan Gabriel (Region B2). Also ensure that documentation is submitted to this Directorate for comment at the earliest possible date.

The Directorate: Integrated Environmental Management (Region B) has the following comments:

1. The DSR creates the impression that Eskom may expect the Department of Environmental Affairs and Tourism ("DEAT") to authorise more than one site for the proposed development. However, according to the documentation, the application is only for a single facility. It therefore needs to be clarified whether or not Eskom expects DEAT to consider the authorisation of more than one Nuclear Power Station ("NPS") for this application;

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- 2. This raises concerns since the DSR does not refer to such an option as an alternative or intention of the current EIA. If this possibility is to be pursued then the application and DSR must be amended to reflect the correct intentions of the applicant and this amendment must be subject to further public participation to allow the public opportunity to adequately consider the revised proposal;
- 3. Furthermore, this Directorate does not support the exclusion of the Brazil and Schulpfontein sites from the EIA phase of the project since, based on the summary table of the preliminary comparative assessment of the five proposed sites (page ix of the Executive Summary), there are other aspects of the site (e.g. geotechnical, heritage and cultural, tourism and some aspects of the ecology of the sites) that might recommend them above other sites once informed by specialist studies conducted during the EIA phase;
- 4. In view of the above, all five alternative sites proposed should be assessed during the EIA phase of the application;
- It must be noted that it is very important that all factors are taken into account and that social, environmental and economic factors are given even weighting when assessing alternatives and in this instance, especially since the DSR indicates that the Brazil and Schulpfontein sites may be considered for development by Eskom in future. As such, if the sites are viable sites for development (and if Eskom will be considering these sites for future development prospects) they should be considered and assessed at this stage. This logic is further grounded if it is indeed Eskom's intention to have more than one NPS facility authorised as part of this application;
- 6. Comments on the Bantamsklip and Duynefontein sites:

# 6.1. The Bantamsklip Site:

Having reviewed the information supplied in the DSR, this Directorate has noted the sensitivity of the site from an ecological, heritage and tourism perspective. The value of the site in these respects and the risks to these aspects that may be posed by the proposed development may prejudice the final recommendations by this Directorate. The Department's main concerns at this time, which need to be addressed during the EIA process, are as follows:

- (a) The Pearly Beach Nature Reserve protects most of the coastal section of the Bantamsklip site, whilst Groot Hagelkraal Farm is a private nature reserve and a Natural Heritage Site. Clearly the proposed project would not be in keeping with the protection status of the site;
- (b) Whilst detailed biodiversity data collections and conclusions have not yet been made, it is apparent that the status and endemism of the floral and faunal species on site may be great;
- (c) The area around Pearly Beach is classified by the Department of Water Affairs and Forestry ("DWAF") as a Sole Source Aquifer i.e. an aquifer which is used to supply 50% or more of domestic water for a given area and for which there are no reasonably available sources should the aquifer be impacted upon or depleted;

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- (d) The river on the site is believed to be relatively un-impacted and of high conservation importance. As a result of the Hagelkraal River, the Bantamsklip site has been identified as a National Heritage Site of major biotic importance. Wetlands on the site must still be delineated and evaluated;
- (e) A very large colony of cormorants was seen roosting on the rocks on the shoreline in front of the proposed terrace for the reactor at the Bantamsklip site (as observed during the on-site inspection on 14 March 2008). Furthermore, the site is reportedly 10km from Dyer Island which hosts important seal and bird colonies during periods of the year;
- (f) The steadily sloping landform to the coastline south of the road (R43) offers no visual screening of the proposed nuclear power station. The Great White Shark and Whale Watching tourism industries operate off the Pearly Beach coastline. The proposed nuclear power station will be a notable structure along a coastline that currently appears virtually undeveloped and natural. Consequently, the power station has the potentia to negatively impact upon the visual experience of the coastline from the sea and from adjacent coastal areas;
- (g) The release of warmed water into the sea at the proposed site from the cooling process may affect the visitation of the sharks and whales to the coastline which could in turn severely impact upon several tourism industries operating out of Kleinbaai and Gansbaai;
- (h) The site is archaeologically sensitive in terms of pre-colonial archaeological heritage. There are a series of limestone hills which have overhangs and rock shelters that contain archaeological material (e.g. human remains). The area has not yet been fully assessed from an archaeological or paleontological perspective;
- (i) Human health may be impacted by the establishment of a nuclear installation in the area through the surface water-radionuclide pathway as well as the food pathway as a result of agricultural activities (e.g. grazing of animals) or subsistence fishing in the area. This is of great concern since the Gansbaai economy is based on fishing activities;
- (j) The Development of a major industry/power station in this position on the coastline could promote further development along the coastline i.e. promote ribbon development of other/associated industry and townships. This sensitive coastline is currently part of a SANParks initiative to form a large open nature reserve network as indicated on page 6-71 of the DSR; and
- (k) CapeNature and DWAF, amongst others, must be included as interested and affected parties and their comment must be obtained for inclusion into the EIA Report.

## 6.2 The Duynefontein Site:

a) It must be noted that the existing Koeberg NPS may be accompanied by the PBMR facility. Therefore, the addition of a new NPS to the site may result in

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the presence of three facilities on the same site. This raises serious concerns about the cumulative impacts associated with such an arrangement. As such, the EIA phase of the project must therefore consider cumulative impacts with respect to all potential impacts of the proposed development. In addition to other cumulative impacts that must be further investigated as part of the EIA process, the following is highlighted:

- The cumulative risk and associated issues (such as safety) and the associated effect that the combination of these facilities will have on these concerns;
- Cumulative impacts with respect to noise and visual impacts (particularly in view of the site context and the expectation that development is gradually encroaching towards the existing Koeberg NPS);
- 3. Cumulative impacts with respect to emergency contingencies and how the combining of these facilities on one site will affect aspects like time available for emergencies e.g. the evacuation of surrounding residential areas;
- 4. Cumulative impacts with respect to sperit fuel storage and waste disposal and management;
- 5. Cumulative impacts with respect to water requirements for the facilities;
- 6. Cumulative impacts with respect to human health; and
- 7. Cumulative impacts with respect to sea temperature as a consequence of expelled cooling water.
- b) The potential for saline intrusion into the Atlantis Aquifer must be further investigated with respect to effects on the groundwater quality. The potential extent of effects needs to be clearly understood in view of the importance of the aquifer and its importance to the surrounding community. In addition, the cumulative effects as well as the consequences of dewatering must be further explained;
- c) Alternative sources of supply of freshwater to the facility must be further investigated. This is particularly important considering that the Berg Water Management Area ("WMA") does not make allowance for water requirements for power generation; and
- d) All specialist investigations must consider climate change issues in their assessments.

## 7. General comments:

7.1. Risk profiles must be completed for each proposed site and these must be comparatively assessed to enable the ranking of the sites in order of increasing risk;

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- 7.2. The EIA Report must address indirect impacts associated with the proposed development. For example, the impact of promoting development along the Bantamsklip coastline must be assessed;
- 7.3. Further consideration must be given to the disposal of, handling, storage and management of waste and spent fuel;
- 7.4. The Ecological specialist investigation must provide an overview and assessment of the impacts to the ecological functioning of the respective sites. Further, the potential impacts of the proposed development on the Pearly Beach marsh/coastal lake system must be assessed;
- 7.5. Visual Impacts must be assessed from land and sea and all viewpoints;
- 7.6. The Engineering Study must address the lower bearing capacity of the substrate at the Bantamsklip site. Associated risks and methods to overcome the problems must be assessed;
- 7.7. An assessment of baseline and expected air quality must be done to address the poor advection of emissions anticipated at the Bantamsklip site;
- 7.8. The Social Impact Assessment and Socio-economic Analysis must address potential impacts on tourism, agriculture and fisheries (or other industry) where appropriate;
- 7.9. The minimum required buffer areas around the proposed developments must be specified for each potential site;
- 7.10. Note that the incorrect figure was supplied on page 6-65 of the DSR (figure 50). The Figure shows the Brazil and Schulpfontein sites and not the Bantamsklip site; and
- 7.11. All of the above must be considered in the specialist terms of reference and the Plan of Study for EIA.

This Department reserves the right to revise or withdraw comments or request further information from you based on any new information received.

Yours faithfully

HEAD OF DEPARTMENT

COPIES TO:

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