



GIBB
ENGINEERING & SCIENCE

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Dear Mr Daniel Reinecke

RE: ESKOM EIA CONCERNS FOR THE PROPOSED NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE (DEA Ref. No: 12/12/20/944)

Comment 1:

The report which identified the 5 original sites developed in the 1980's looked at 5 sites between Cape St Francis and the Titsikamma River, 2 east of Oyster Bay and 3 west. The 3 west sites were identified as those preferred to the 2 on the east for certain, and I think most criteria, but the 2 eastern sites were preferred for geomorphology reasons. It looks to me as if the problems with the Thyspunt site from a dune, freshwater and conservation point of view was not properly assessed.

I believe there is a need to review a comparison between these 5 sites as it is possible that one of the 3 sites on the west of Oyster Bay could be a better choice than Thyspunt for the following reasons;

- cheaper, no moving sand dunes to influence the platform, access road and transmission lines, closer access to N2;
- less people around the site, easier evacuation, but yet still close enough to H'dorp and J'bay for accommodation of workers, shops, hospitals etc;
- less pristine environment, most land is farmed, whereas the Oyster Bay and Thyspunt headland bypass dune system should be declared a national park as has been requested by many people; and
- less excess sand to dispose of.

Response 1:

Your comments are noted. We refer the author to the extract below taken from page 13 of the Nuclear Siting Investigation Programme (NSIP) Eastern Cape Summary Report Revision 1 - December 1994. The full report may be downloaded from the GIBB website at: <http://projects.gibb.co.za/en-us/projects/eskomnuclear1.asp>

"Six potential sites were identified in the area between Cape St Francis and the Tsitsikamma River, namely at De Hoek, Thyspunt, Tony's Bay, Klippepunt, Morgan's Bay and Brakkenduinen. The location of these sites is shown in Figure 3 overleaf. During the course of the site specific studies, a major geological fault was found to run through the Klippepunt site and under the Morgan's Bay and Brakkenduinen sites (See ref. ACC1162454). Although the initial movement on this fault occurred during the Cape Fold Mountain building activity several hundred million years ago, there was evidence to indicate that it was reactivated in the Gondwanaland split, between 30 to 80 million



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years ago. However there was no direct evidence to indicate that it had moved within the last 1 million years, and thus could not be positively categorized as a capable fault, as defined in the US Reactor Siting Criteria 10 CFR 100. But there is also no evidence to indicate that no movement had taken place over this period of time, and although it could not be positively categorized as a capable fault, the NSIP Geological team decided that there was insufficient evidence available to provide the confidence that a nuclear power station could be located in the fault zone.

The same fault system that was identified at Klippepunt, was found to extend westwards along the coastal cliffs of the 'western portion of the Oyster Bay Area, thus effectively ruling out this portion of coastline as well. It was therefore decided to deem the Klippepunt, Morgan's Bay and Brakkenduinen sites unsuitable for the siting of a nuclear power station."

It is therefore clear, in terms of the above extract, that the sites were eliminated due to geological considerations. Further to initiate another siting process and to carry out the requirement monitoring would take between 5 -10 years to qualify the site and only then could the EIA be initiated it is therefore not an acceptable alternative for Nuclear 1. However, these sites could be included in the sites to be studied in future.

Yours faithfully
for GIBB (Pty) Ltd



The Nuclear-1 EIA Team