

05 August 2015

Our Ref: J27035

Your Ref: Email received 07 August 2011

Email: [mccroft@yebo.co.za](mailto:mccroft@yebo.co.za)

**Cape Town**

14 Kloof Street  
Cape Town 8001  
PO Box 3965  
Cape Town 8000

Tel: +27 21 469 9100  
Fax: +27 21 424 5571  
Web: [www.gibb.co.za](http://www.gibb.co.za)

Dear Michael & Cecelia Ravenscroft

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

**Comment 1:**

**COMMENT ON NUCLEAR – 1 REVISED DRAFT**

We have studied revised draft and attended public meetings in connection with Nuclear 1. We align ourselves with the Save Bantamsklip campaign and agree with their comments. In particular we would like to make the following comments:

**1. Nuclear safety**

In the Mail & Guardian of the 29/07/2011 a report on nuclear plant safety, the nuclear regulator informs us that Koeberg has established a team that identified areas for improvement.

We were told that is was perfectly safe. Will Nuclear -1 also be reassessed down the line for possible improvements, if nothing goes wrong in the meantime?

Experience has shown that human error and natural disasters are impossible to predict.

All systems are at risk from accident and breakdown and we must suffer the resulting inconvenience. A nuclear disaster, with loss of life and long lasting effects on humans and the environment, goes way beyond inconvenience, and is unacceptable.

No decision makers should be expected to carry this responsibility as part of their job.

**Response 1:**

Your comments are noted.

The principle of continuous improvement is an intrinsic part of the operational philosophy of nuclear power stations. The fact that improvements have been identified does not mean that there have been significant deficiencies that endangered public safety. Nuclear power station operators are informed on an on-going basis by the International Atomic Energy Agency (IAEA) of possible improvements

that are identified in nuclear facilities so that these can be replicated in other facilities to improve nuclear safety globally.

For instance, even though no tsunami has ever been recorded on the Cape west coast, the Koeberg Nuclear Power Station (KNPS) is constructed on a platform 8 m above sea level to minimise the risk of a tsunami impacting the power station. In the wake of the events at Fukushima Daiichi power station in Japan, lessons learnt from that incident are also being applied at the KNPS to reduce this risk even further. Although there are a number existing back-up power supply options, new diesel generators are being installed at a height of 12m above sea level to provide an additional power supply in the event that all the other options fail.

Risk is inherent in almost all human activity. Whilst it is true that there are (managed and well-controlled) risks associated with nuclear power generation, there are many other common risks (that have a far greater potential to lead to fatalities or serious and debilitating injuries) that the public is happy to accept on a daily basis. Such common risks include travelling in vehicles (around 15,000 South Africans are killed on our roads each year – this does not include the number of serious injuries and incidents of paralysis) and common household chemicals like chlorine that can be used to make explosives, but over which there is no control. In spite of the comparatively low risk of sickness or death from nuclear incidents (bearing in mind that there has been not a single fatality or incidence of radiation sickness recorded from the release of radioactivity from Fukushima Daiichi but more than 20,000 combined deaths and missing persons recorded as a result of the tsunami), there remains a perception that nuclear technology results in an inherently greater risk of death or injury than other commonplace risks. In spite of 20,000 deaths from the tsunami, there does not seem to be an equal perception of risk associated with living in low-lying coastal cities, living in areas prone to earthquakes or other commonplace risks that people have come to take for granted.

#### **Comment 2:**

##### 2. Energy crisis

Having neglected [even opposed] developing alternative systems for the past 30 years because “we have the cheapest electricity in the world” we are now struggling to have other safe, environmentally friendly systems developed and accepted by a poorly motivated public.

Another nuclear plant may be necessary to tide us over the slow development of alternatives and closing of old coal fired plants.

#### **Response 2:**

Your comment is noted.

It is not in the mandate of this EIA process to compare the costs and benefits of nuclear generation technology to renewable forms of electricity generation, since the EIA process is, by its very nature, a project-specific tool that focuses on a particular form of technology. However, it is to be noted that the Integrated Resource Plan (government’s strategy for security of energy supply over the next two decades) requires a balanced mix of generation technologies, including 9,600 MW of nuclear and 18,700 MW of renewables. It is also pointed out in the Revised Draft EIR that a mixture of generation technologies, including base-load power supply (of which nuclear is an example) and peaking power supply are required. It is, therefore, not a simple matter of closing all coal-fired power plants over time, replacing them with renewable technologies and using nuclear as a “stop-gap” in the meantime. As indicated in the Revised Draft EIR, the expected operational life span of Nuclear-1 is 60 years. It is also to be noted that the South African government has committed itself to a fleet of nuclear power stations in future.

#### **Comment 3:**

##### 3. Siting of plant

To alienate portion of our magnificent south west coastline for a nuclear power plant is unthinkable. Over and above the safety factor for the people who live and visit these areas, the negative impact on the environment, both physically and visually on a permanent basis is irresponsible.

All the mitigating responses that are proposed in the report confirm the unsuitability of our eastern coastline. Environmental experts such as Dr Richard Cowling give far higher ratings to Bantamsklip than what is shown in the Draft. The actual area occupied by the proposed plant and the supports to the radiating transmission lines is insignificant compared to the extent of the area negatively affected and the impact it will have on this important part of our small but rich Floral Kingdom.

Abandoning of the two west coast sites before the public had an opportunity to comment on their suitability, is suspicious. Their remote siting, sparse population and proximity to the hazard storage site at Vaalputs made them the preferred sites. Cost of transmission was cited as the factor that disqualified these sites. The extra cost involved, compared to the lines over the terrain from Bantamsklip for instance, may well be acceptable when the public, who will ultimately bear the cost, are made aware of the benefits.

To summarize: First preference is no nuclear but if unavoidable on one of the west coast sites.

**Response 3:**

Your comments are noted.

It is also noted in the Revised Draft EIR Version 1 that the potential cumulative impacts of the Bantamsklip site together with the impacts of the transmission lines will be significant.

The exclusion of the Brazil and Schulpfontein (Northern Cape) sites at the end of the scoping phase was accepted by the then Department of Environmental Affairs and Tourism (now the Department of Environmental Affairs – DEA). Your comment is based on the assumption that placing Nuclear-1 in the Northern Cape would necessarily lead to lesser degradation of the environment than the other alternatives. This assumption can be challenged. The Northern Cape (not only the location of the power station but also the areas that the transmission lines will traverse) is home to some of the most endangered and endemic succulent plant species on earth, since the Succulent Karoo Centre of Endemism, with critical biodiversity areas like the Knersvlakte lies between the proposed Northern Cape sites and the Western Cape. Furthermore, the transmission lines would have to traverse the Namaqua National Park. On the other hand the Cape Metropole is already largely developed, and the areas that would be affected by the development of the Duynefontein site are therefore already degraded from a biodiversity perspective.

It is not factually correct to state that the public had no opportunity to comment on the exclusion of the Brazil and Schulpfontein sites, which you refer to as the “west coast” sites. The scoping process included extensive public participation and the Nuclear-1 Scoping Report and Plan of Study for EIA were provided for public comment in terms of the requirements of the EIA regulations. Additionally, the Revised Plan of Study for EIA was also provided for public comment.

Yours faithfully  
for GIBB (Pty) Ltd



---

The Nuclear-1 EIA Team



---

GIBB Holdings Reg: 2002/019792/02  
Directors: R. Vries (Chairman), Y. Frizlar, B Hendricks, H.A. Kavthankar, J.M.N. Ras

Arcus GIBB (Pty) Ltd, Reg: 1992/007139/07 is a wholly owned subsidiary of GIBB Holdings.  
A list of divisional directors is available from the company secretary.