5 August 2015

Our Ref: J27035 / J31314
Your Ref: Email received 02 August 2011

Email: francois.bekker@safrich.com

Tshwane

Lynnwood Corporate Park
Block A, 1st Floor, East Wing
36 Alkantrant Road
Lynnwood 0081
PO Box 35007
Menlo Park 0102

Tel: +27 12 348 5880
Fax: +27 12 348 5878
Web: www.gibb.co.za

Dear Mr Bekker

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

Comment 1:

On previous occasions I have requested information about the Milnerton geotechnical fault line that the current Nuclear reactor is built upon. You did not provide any information to us!

Response 1:

Your comment is noted. Information on the tectonic environment at all three sites is available in both the Geological Hazard and Seismic Risk Assessments (Appendix E3 and E4 of the Revised Draft EIR).

The Seismic Risk Assessment reports as follows on the **postulated** Milnerton fault: "*Dames and Moore (1976) concluded that enough circumstantial evidence exists to postulate the presence of a northwest striking fault offshore of Duynefontein but that it does not come closer than 8 km to the site. It is however possible that such a postulated fault could pass anywhere between 7 and 10 km offshore of Duynefontein (the inferred Melkbos Ridge Fault passes 7.5 km from the Koeberg Nuclear Power Station). No new research has been performed to confirm or refute the presence of the postulated fault or its point of closest approach to the site. The inference that the event happened closer to Milnerton than to Duynefontein is based on the reported damage to the farmhouse at Jan Biesjes Kraal.*"

Comment 2:

What would be the result of a similar strength earthquake happens in the region of the current plant?

Response 2:

Your comment is noted. We assume you refer to the earthquake that occurred in 1809.

The Seismic Risk Assessment referred to above indicates that "*Evidence for a large earthquake with a maximum intensity of VIII, and ML 6.3 (Brandt et al., 2005) having occurred in 1809 within 25 km of Duynefontein comes from historical records of its secondary effects. The closest position to Duynefontein where liquefaction features were reported is at Bloubergsvlei (De Beer, 2007b).*" No

measurement of the magnitude of this earthquake was undertaken at the time, so it is impossible to accurately predict the impact if a current day occurrence of similar magnitude would occur. Due to the relatively high peak ground acceleration at the Duynefontein site, The Koeberg Nuclear Power Station was constructed on a "seismic raft" to protect it against earthquakes. Koeberg has been designed to withstand an earthquake of approximately 7 magnitude on the Richter Scale occurring 8 km from the Koeberg site.

Comment 3:

We have a farm adjacent to Koeberg Nature reserve and would like to know urgently what the exclusion zones, or planned exclusion zones are, as it would severely affect what we could do on the land, and it would also affect the price of the land.

Response 3:

When Eskom developed their specifications for the design for the PWR (Pressurized Water Reactor) power station, they had specified that it must comply with the EUR (European Utilities Requirements) . This requirements specification stipulates an 800 m Protective Action Zone (within which no private development is allowed) and a 3 km Urgent Protective Zone (within in which certain emergency measures will be applicable). These zones are smaller than the current Emergency Planning Zones (EPZs) for the Koeberg Nuclear Power Station, for which the corresponding radii of the EPZs are 5 km and 16 km respectively. The NNR is currently in the process of proposing draft regulations on the development in the formal emergency planning zone (16km) of the Koeberg nuclear power station

ADDITIONAL COMMENTS FROM INDEPENDNT NUCLEAR SPECIALIST

As stated this would then be one of the design criteria for any proposed new technology to be deployed in future

Comment 4:

I do not approve of the current processes you are following as you do not consult with adjacent landowners whose land prices could be severely affected if another plant is built nearby the current nuclear plant.

Response 4:

Your comment is noted. All surrounding landowners have been consulted during the EIA process in terms of the requirements of the National Environmental Management Act. A potential decrease in property values has not been assessed. Based on experience with Koeberg Nuclear Power Station, there may be an initial negative perception regarding properties located in close proximity to a nuclear power station. However, over time this changes. In fact, the restrictions on densities within a 16 km radius of Koeberg have led to an increase in property prices.

Comment 5:

What is the expected lifespan of the current plant?

Response 5:

The projected operating life of the planned Nuclear-1 plant is up to 60 years. The Koeberg design life is 40 years this may be extended for 60 years subject to being economically viable and all safety requirements being met. The first unit of Koeberg was commissioned in April 1984.

Comment 6:

Please provide the requested information on an urgent basis, and I would like to discuss the matter with the head of GIBB or Eskom.

Response 6:

The requested information is provided in this letter and reference to more detailed information in the Draft Environmental Impact Report. .

Comment 7:

I do not approve of the extension of the plant at Koeberg, as we would be affected by it.

Response 7:

The plant at Koeberg is not being extended. This application is for an additional power station. Your comment is noted and has been documented.

Yours faithfully
for GIBB (Pty) Ltd

Nuclear-1 EIA Project Team