

05 August 2015

Our Ref: J27035/ J31314
Your Ref: Email received 07 August 2011

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Dear Andre Von Holdt



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

RE: ESKOM ENVIRONMENTAL IMPACT ASSESSMENT (DEA REF. NO.: 12/12/20/944) FOR A PROPOSED NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE - REVISED DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT: REMINDER CLOSURE OF REVIEW PERIOD

Comment 1:

We would like to register our opposition to the possible siting of a nuclear power plant at the proposed Bantamsklip site.

As the recent natural catastrophes in Japan have illustrated, nuclear power can never be considered 100% safe. Natural disasters, mechanical breakdowns and human error are factors that are unpredictable and inevitable in the long-term. This is of relevance to both active nuclear reactors as well as to the extremely long-term hazards of nuclear waste that will become the burden of future generations.

Response 1:

Your comment is noted. It is acknowledged that the incident at Fukushima as a result of this natural disaster has highlighted many important safety factors in terms of the future of nuclear energy and is indeed a stark reminder of the unpredictability of the natural environment. However it is also well known that South Africa is located on a vastly more stable tectonic environment than that of Japan which is situated close to a major subduction zone within the Pacific Ocean and the two cannot, in all fairness, be compared to one another.

South Africa will not build its nuclear power stations on fault lines or on coasts susceptible to tsunamis, and it has already reviewed its regulatory system. We therefore stand by our assessment that serious incidents in South Africa are unlikely. Please see Appendix E32 and E33 attached for a more detailed discussion.

It is also acknowledged that the issues of radioactive waste management is important and integral to debate surrounding nuclear energy and as stated the only alternative currently available in South Africa is long-term storage of the spent fuel in the nuclear power station. However please note that radioactive waste management practices envisaged for Nuclear-1 are consistent with the IAEA guidelines for a Radioactive Waste Management Programme for nuclear power stations, from generation to disposal. Nuclear Power Station strives to minimise production of all solid, liquid and



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gaseous radioactive waste, both in terms of volume and activity content, as required for new reactor designs. This is being done through appropriate processing, conditioning, handling and storage systems. In addition, production of radioactive waste is minimised by applying latest technology and best practices for radiological zoning, provision of active drainage and ventilation, appropriate finishes and handling of solid radioactive waste. Where possible, the Nuclear-1 power station will reuse or recycle materials.

All forms of radioactive wastes are strictly controlled and numerous specialised systems and management practices are in place to prevent uncontrolled contact with these substances. These controls and practices differ for the different forms of radioactive waste. South Africa still has to formally release a strategy for the long-term management of HLW, including spent fuel. Until such time, all spent fuel is stored temporarily either in spent fuel pools (wet storage), or in dry cask storage facilities (dry storage). This allows the shorter-lived isotopes to decay before further handling, a management strategy that is acceptable from a safety perspective. It must be noted however that as per the Department of Energy's Media Statement on Nuclear Procurement Process Update as released on 14 July 2015 strategies are complete to develop an approach for South Africa to deal with Spent Fuel/High Level Waste disposal.

Comment 2:

The development of alternative energy solutions has not been taken up or promoted by government adequately. This must be done so with urgency.

Response 2:

This EIA and Application for Environmental Authorisation is not a strategic assessment of South Africa's energy requirements and the future energy mix proposed to address these requirements or an investigation into the pros and cons of the use of Nuclear Power versus Renewable/Alternative Energy. It is a tool used to assess the possible positive or negative impact which the proposed project may have on a specific receiving environment, which in this case are the Dуйnefontein, Bantamsklip and Thyspunt sites. As you rightly point out these issues fall within the ambit of strategic government initiatives such as the Integrated Resources Plan 2010.

Comment 3:

In terms of the specific proposed siting at Bantamsklip, this seems extremely inappropriate. This is a highly prized area of the coast in terms of both tourism and biodiversity - and an area in which the local economy relies on its many visitors / tourist trade.

Response 3:

Your comment is noted however a team of in excess of 30 independent specialists (including tourism, socio-economic and biodiversity specialists) have found no fatal flaws at any of the three sites under investigation. In the event that the Thyspunt site is approved by the Department of Environmental Affairs for the construction and operation of Nuclear-1 Eskom would need to re-apply for Environmental Authorisation if Bantamsklip is put forward as a site alternative for Nuclear-2.

Yours faithfully
for GIBB (Pty) Ltd



The Nuclear-1 EIA Team