

Does South Africa need another 20 years of Koeberg?

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Nuclear Power as an energy source

- Nuclear Power is often touted as a constant reliable baseload.
- The myth of reliability:
- In February 2006, Eskom announced the first "load shedding" in the WC province, due to issues experienced by Koeberg Nuclear Power Station (KNPS).
- A number of long outages in recent years.

Inadequate Consultation Process

- Announcing the comment period over the December holiday period in a limited area means the majority could not engage/ were not informed.
- Only three venues for public hearings and oral submissions with minimal transport provided.
- Only after action by civil society has the comment period extended and further public hearings announced later in the year.

Decision-Making: Best Practice

- The National Nuclear Regulator (NNR) commits to international best practice in the way it regulates nuclear power stations, and so does the LTO application.
- The KNPS is a French design built by the French firm Fromatome.
- France follows best practice in nuclear regulation.
- France does not grant extensions of licences for more than **ten years**; yet ESKOM wants a **20 year** extension.

Best Practice continued..

- France is going to be spending almost double the amount of money on the extension of life of its similar reactors to KNPS, and one asks what this means from a safety perspective?
- Core catchers, where feasible to install are required for best practice in France for their nuclear reactors, but we won't be getting one. Why?

Evacuation Plans at KNPS

- There is no plan in place to evacuate anyone further than 16km from Koeberg, but evidence from Fukushima and Chernobyl illustrate that radioactive dust can go as far as 50km.
- Consider Cape Town's winds.

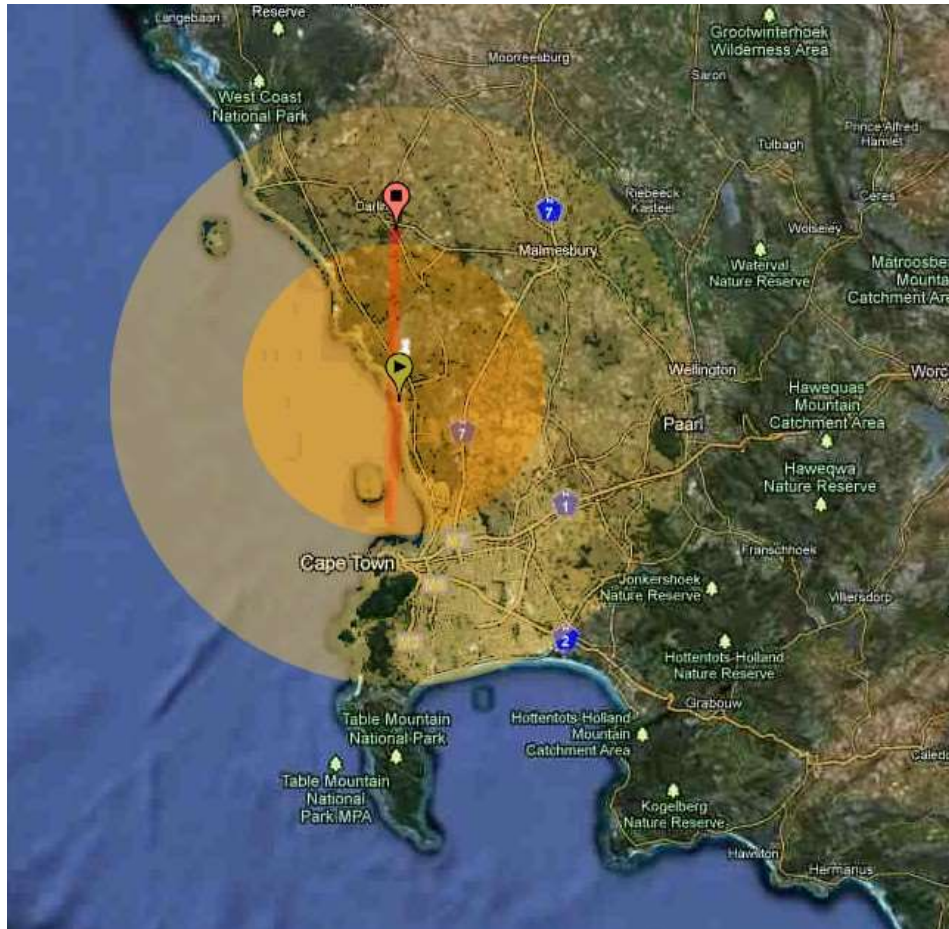


Image source: <https://koebergalert.org/accidents-and-safety/>

Safety at KNPS

- In March 2022 IAEA did a review of the safety aspects of long term operation (SALTO) at KNPS.
- It includes recommendations for improvements affecting ageing management and safe long term operation (14 in total) for consideration by the responsible authorities i.e. Eskom and the NNR.
- The concern is that Eskom has not yet met many crucial safety recommendations made in this report and will only do so in many cases after the extension of the licence is granted, if at all.

SALTO

In three critical respects ESKOM cannot achieve defence-in-depth until after the licence is granted. These are:

1. The structural integrity of the reactor building,
2. The monitoring of pressure inside the reactor,
3. The aging and embrittlement of the cooling mechanisms of the reactor.

All of these aspects are critical to preventing a nuclear accident.

SALTO continued

- Eskom incorrectly reassures the public in its Public Information Document that the SALTO assessment "confirmed that the continued safe operation of Koeberg was supported, including LTO." [1]
- This is not true because, for example, Eskom only intends addressing the lack of a fully functional containment structure monitoring system after the authorisation for Koeberg's LTO is granted.
- The SALTO said that without this system "not all necessary data for the containment structure will be available to demonstrate the intended safety function during LTO."

Northern Cape: The Vaalputs Radioactive Waste Disposal Site

- Surrounding communities (Kharkams, Kommagas, Garies, Nourivier, Spoegrivier) express concerns on the LTO license of Koeberg on the following issues:
- Poor Communication and Public Participation:
- Lack of community engagements in decision-making processes. Vaalputs was licensed in 1990 and only in 2003 were the local communities contacted by the NNR.
- In 2023, the Vaalputs Public Safety Information Forum has limited attendance to 3 representatives per community.



“I have been cut short while trying to speak on the issue of Vaalputs on the radio” –

Benjamin Kriel,
Kharkams
community
member
and faith leader

Vaalputs

Lack of Safety at Vaalputs:

- In 1997 it was found that Vaalputs had been leaking radioactive material for years. Leaked material can remain hazardous for hundreds of years. The license was temporarily suspended.
- Vaalputs is only licensed to store low and intermediate level waste. A 1997 Mail & Guardian article reports it was discovered that high level waste has also been stored there.

“Metal drums filled with radioactive waste and buried at the Atomic Energy Corporation’s (AEC) Vaalputs site in the Northern Cape have leaked, while concrete blocks used to contain more dangerous waste have also failed.”
- M&G.

<https://mg.co.za/article/1997-07-11-nuclear-dump-shut-down-after-leaks/>

Vaalputs continued..

Poor quality of roads on which radioactive waste is being transported by truck.

If KNPS is granted the LTO license, radioactive waste will continue to be deposited at Vaalputs for a further 20 years. Communities are concerned that the same lack of communication and clarity will continue, and that further high level waste will be stored at Vaalputs.

***Ethically, the answer should be no.
Economically, the same.***

The benefits of nuclear power are too few, and the consequences of serious mishap too great, to make it a reliable component of the energy supply the world needs in the decades to come.

National Catholic Reporter, March 2011