## Thyspunt not safe, new report shows

## **Heather Dugmore**

T is not safe to build the proposed nuclear project at Thyspunt, and far more baseline research is required before any decisions should be made.

These are the findings of a new research report, "Geo-Realities @ Thyspunt", released by the Africa Earth Observatory Network (Aeon) institute at Nelson Mandela Metropolitan University.

Based on scientific data, the research undertaken by NMMU

## Researchers find geology makes site high-risk for nuclear plant

postgraduates has shown that the geology and geomorpholo- ades. gy in and around Thyspunt make it high-risk and irresponsible to build a nuclear power station at the site.

Aeon National Research nuclear power station. Foundation scientist and a UK chartered geologist Professor to determine the presence of Maarten de Wit said Eskom and hard rock, because nuclear its consultants had declared power stations needed to be Thyspunt to be technically and built on the hard rock, under environmentally safe for a nuter the dune fields below sea level, clear plant after studying rock De Wit explained.

formations there for three dec-

They collected a vast amount of data to determine its geological, tectonic and environmental suitability to host a 4000MW

They drilled down 270 times

"What they did not pick up, but which one of my postgraduate researchers has since meticulously detailed, is the presence of four ancient palaeocanyons and valleys, cut into below sea level at Thyspunt and the adjacent Tony's Bay, Cape St Francis and St Francis Bay," he

unequivocally shown that these canyons and valleys are hidden beneath the powerful storm waves or spring

dune sands and soft sedimentary sequences, and that they extend inland well below the present-day sea level."

The Thyspunt palaeo-valley, for example, cuts into an area of the hard bedrock at about 20m more than 1 000m<sup>2</sup> of bedrock to a depth of 16m below sea level.

> "What this means is that if you build a nuclear plant below sea level here - which it would be – you only need one earthquake causing a tsunami or

tides and, because of the presence of the canyons and valleys, Thyspunt is at great risk of flooding from below."

De Wit said the risk of earthquakes and tsunamis needed to be regarded as a significant nat- approach adopted, Eskom will ural hazard in the region.

Another postgraduate researcher at NMMU recently revealed a surprising history of devastating local seismicity along so-called dormant faults.

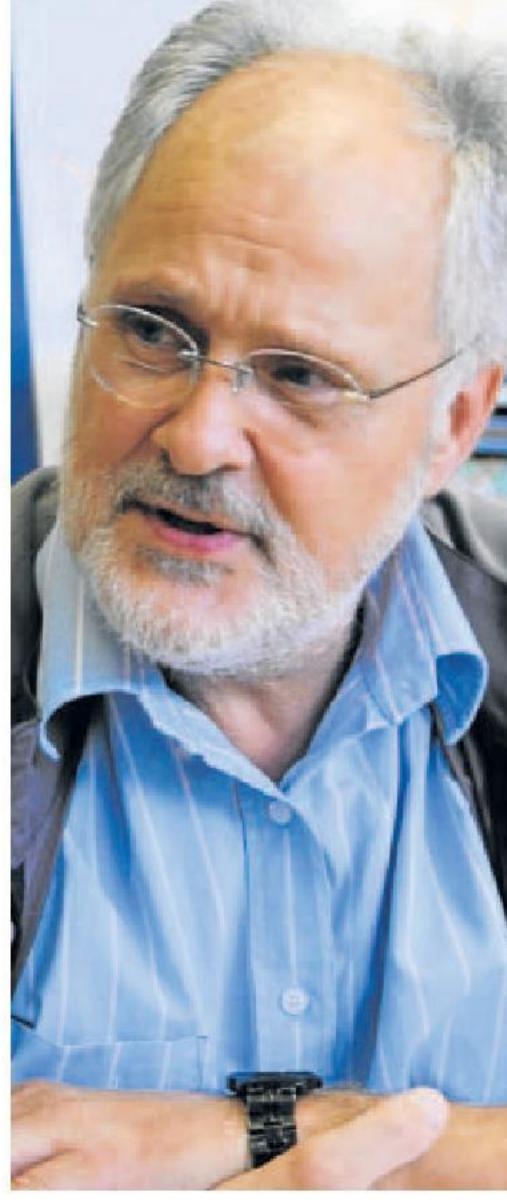
"The public has a right to be series/

concerned. What do we really know about this site beyond Eskom's hearsay?" De Wit said.

But spokesman Nto Rikhotso said yesterday Eskom was confident its Probabilistic Seismic Hazard Assessment had accurately captured the seismic hazard level for the site.

"Apart from the conservative also apply conservative decision-making in the design and operation of a future Thyspunt nuclear installation."

The Aeon report is available on www. aeon.org.za/aeon-publication-



**MAARTEN DE WIT**