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Our Ref: J27035/J31314

Your Ref: Email received on 17 November 2012



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Dear Mr Goedhart

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

Comment 1:

As an I&AP, and team member of the Eskom SSHAC committee (Senior Seismic Hazard Assessment Committee), I would like to get the overview of the Thyspunt site as provided in the EIA. I was responsible for the geological mapping of the Regional, Site Vicinity and Site Area, and initial Site Location work (1:5,000 scale). These are regulated investigative distances from the reactor site. I am also the person who mapped out and removed the 'Klippepunt fault' previously indicated by the AEC team (now NECSA), and helped co-ordinate and interpret the geophysics around the site, both onshore and offshore. These maps and reports are all at CGS and Eskom, and I am sure you have perused them. Following recent discussions with people and organizations who contributed to the EIA, and are probably referenced in it, I realized I never saw the final EIA, e.g. what is the purpose of the 3km boundary from the EIA corridor, and how is it defined?

Or for that matter, the 800m line from the EIA corridor?

Response 1:

As indicated in section 3.20.2 of the Revised Draft EIR version 2, the radii of the emergency planning zones for Nuclear-1 are based on European Utility Requirements (EUR) guidelines for Generation III nuclear power stations. These are safety zones defined around the power station. The inner EPZ, within which no private development is allowed, is referred to as a Protective Action Zone (PAZ) and is 800 m in radius. The larger EPZ, within which development restrictions will apply to ensure that emergency evacuation is feasible, is referred to as an Urgent Protective Zone (UPZ) and is 3 km in radius.

Comment 2:

Are these distances regulated, as per NUREG Site Area and Site Location regulations?

Response 2:

The European Utility Requirements (EUR) is a specification document drawn up by electricity utilities to give guidance to designers and vendors on the expectations of the utilities. The decision regarding the nuclear emergency plan rests with the National Nuclear Regulator (NNR).

.No fixed distance for these EPZs is specified in legislation, but the NNR determines their size on a project-specific basis, based on the safety case for the specific technology proposed for the power station. Although current EPZs for Koeberg Nuclear Power Station (KNPS) are larger than those proposed for Nuclear-1, Eskom has proposed EPZ based on EUR requirements, based on the proposed technology for Nuclear-1. . The basis for Eskom adopting the EUR is that the EUR specification aims at ensuring that the design of nuclear power station that is adopted will have minimal impact on people and the environment.

Comment 3:

Are they defined in the EIA?

Response 3:

Please refer to Response 1.

Comment 4:

There are various activities and proposals being submitted around the Eskom property. Are these addressed in the EIA to buffers?

Response 4:

Current land uses around the proposed sites are considered. However, planned land uses cannot be anticipated and are outside the control of Eskom or the NNR until such time as the EPZs have been formally defined. Refer to Appendix E34 for the Town Planning Assessment which considers the impact of the EPZ's on the surrounding land use.

Comment 5:

What regulations control the type of activities allowed just outside the Eskom area?

Response 5:

The National Nuclear Regulator will exercise control over the activities taking place within the UPZ.

Comment 6:

1. Please could you send the EIA .pdf, or point me to a website where I can access it.

Response 6:

GIBB contacted the author via phone and e-mail on 23 November 2012 and referred him to the necessary link in order to download the documents requested.

Comment 7:

2. Dr. Werner Illenberger informed me that Gibb had Southern Mapping Co. fly all 5 sites with Lidar in 2007, for Eskom. The people we were dealing with at Eskom did not know this (right-left hand). We discovered this in 2009, and obtained the data for the Thyspunt site in time for the restart and recent T2 marine terrace mapping & OSL / CN dating program by Geomatrix-CGS. I was closely involved in this too, as well as the T1 fault mapping and dating program. With all the recent developments in and around Oyster Bay – Thyspunt – St. Francis, has the site since been reflown (aerial photography, or even lidar)? Just checking..e.g. Mapping the recent flood damage wrt the Sand River, and other areas, may assist geo-hazard investigations in the Site Vicinity area.

Response 7:

The sites have been reflowed in 2011.

Yours faithfully
for GIBB (Pty) Ltd

A handwritten signature in black ink, appearing to be a stylized 'S' or 'J' with a flourish.

The Nuclear-1 EIA Team