



## **MEDIA RELEASE**

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### ***FOR IMMEDIATE RELEASE***

#### **Earthquake/Tsunami in Japan and Implications for Nuclear Safety in South Africa**

The recent incident of an earthquake/tsunami as well as the explosion in the Fukushima Nuclear reactor has not only left the world grief-stricken at the devastating loss of lives but has also brought to the fore the question of nuclear safety and raised some uncertainty with the safety of our own Koeberg Nuclear Power Reactor if a similar natural disaster were to occur on our shores.

First and foremost, the National Nuclear Regulator (NNR) wishes to extend its condolences to the people of Japan at the loss of several lives and total chaos to which this country (Japan) has been plunged by destructive forces of nature.

The NNR is currently reviewing information and monitoring developments with keen interest from the nuclear accident at the Fukushima Daichi Nuclear Power Plant as obtained from reliable international sources such as the International Atomic Energy Agency (IAEA) and will, once complete information is obtained, release a much more comprehensive statement.

“We are quite cognisant of the fact that there has been some speculation regarding the shut down of Unit 2 at Koeberg with some suggesting that such a shut-down is related to the nuclear accident in Japan. We would like to assure the South African public that the shutdown of Unit 2 in Koeberg was effected in line with the maintenance schedule of the plant and had nothing to do with the events in Japan. This is a normal refuelling outage and maintenance which is conducted every 18 months as per schedule.” Stated the NNR’s CEO, Adv. Mkhize.



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Although there are no full proof guarantees when one deals with unpredictable forces of nature, the NNR can confirm that the Koeberg Nuclear Power Plant design structure provides a reasonable assurance of its ability to withstand external events such as earthquakes and tidal waves of a magnitude which are considered likely in the vicinity of the plant. The Koeberg plant is designed to withstand an earthquake of a level 7 on the Richter Scale (occurring at the plant) and an 8 metre high tidal wave.

The NNR understands that the initiating event leading to the nuclear accident at the Fukushima Daichi Nuclear Power Plant was the total loss of power supply (both from loss of the grid and internal diesel generators back up supplies) which occurred as a result of the Tsunami (flooding) and this interrupted the cooling of the reactor core, leading to the subsequent release of radiation to the environment.

In case of a total loss of power supply, Koeberg has developed a set of severe accident management guidelines which would mitigate the consequences of such an unlikely event.

In terms of a total loss of electrical power supply (as happened at Fukushima) the operators at Koeberg are regularly trained and examined to cope with such an event. In this regard Koeberg is equipped with steam-driven cooling pumps and (protected) water supplies which operate in the absence of electric power. These could be run until a controlled shutdown is achieved.

Even if nuclear fuel damage were to occur in the reactor, Koeberg is equipped with hydrogen re-combiners which do not require electrical power supply. This should ordinarily prevent the explosion experienced at the Fukushima Daichi plant due to hydrogen build-up. Given the location of the diesel fuel and diesel air intakes at Koeberg, it is considered that even a 10m high water level would not cause the emergency diesel generators at Koeberg to fail as was the case at Fukushima.



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Koeberg and the City of Cape Town have an emergency plan which is tested regularly (every 18 months), which is applied onto a radius of 22 km from the plant, as well as contingency plans beyond this distance.

The NNR would like to reiterate that the impact of the nuclear accident in Japan on the loss of lives seems to be insignificant in comparison to lives lost as a result of the devastating effects of flooding. This suggests therefore that any judgement or pronouncement on nuclear energy as dangerous or unsuitable would not only be inappropriate under the circumstances but also not borne out by factual reality.

Yours sincerely

**Adv. Boyce Mkhize**

CEO:NNR

*-ends-*

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