

# GNPPO NEWSLETTER

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## NUCLEAR POWER SITING GROUP OF KOEBERG, SOUTH AFRICA, HOST GHANAIAN COUNTERPART

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### About GNPPO

*The Ghana Nuclear Power Programme Organisation (GNPPO) is mandated with the task of coordinating, overseeing and administering the phase-to-phase implementation of the Nuclear Power Programme in Ghana.*

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### BACKGROUND

The siting team of the Ghana Nuclear Power Programme Organisation (GNPPO) has embarked on a scientific visit to the koeberg nuclear power plant, the only nuclear power plant in Africa and one of the many power plants owned by the Electricity Supply Commission (Escom) of South Africa. The team, which comprised of Geotechnical Engineers, Environmental Scientists, Regulators, Nuclear Engineers, Geologists and Geographic Information Systems (GIS) Experts, went through a number of training and exchange of experiences with their South African counterparts on analyses that need to be accomplished before settling on a specific site for a nuclear power plant.

Topics covered include “An Overview of the South African Nuclear New Build Programme”, “New Site Selection Approach”, “Site Safety Report: Content and Structure”, “Site Evaluation: Probabilistic Seismic Hazard Analysis (PSHA) and Flooding Analysis”. Ghana made presentation on the “overview of the Ghana nuclear power programme” and “Siting

Analyses: Ghana’s Phase One Nuclear Power Programme.”

The team also visited two consulting firms that undertook some of the analyses on behalf of Escom. PRDW, an international group of consulting engineers in the specialist areas of port and coastal engineering, and SRK consulting, specialised mainly in the earth and water resource gave insights into their approach and models used. The group was taken through a series of lectures on seismic analysis, chemical analysis, radiochemical analysis, and geochemical analysis, project impact on the environment, among others.

The team also visited the koeberg nuclear control room simulator used for training operators of the power plant. The team was briefed on the dynamics of the control room, which has the same working principle as the actual control room for the koeberg nuclear power plant.

Participants got the opportunity to tour the nuclear power plant and were introduced to emergency preparedness for any radiological emergency. The Ghanaian

Scientists and Engineers expressed their satisfaction with the visit and the intensive training and exchange that had taken place between them and the South African counterparts.

Dr. Nii Kwashie Allotey, the Director-General of the Nuclear Regulatory Authority, believe the Exercise, although has revealed the amount of critical analyses that needs to be done in the phase two of Ghana's programme, was reassuring because some analyses had already been done in phase one and that the Ghanaian participants understood and could appreciate analyses that are expect-

ed to be conducted in the second phase of the programme.

***“Reading is the most important thing. We have distinguished ourselves because we have made it a habit to read; whatever material and information we need is out there. Our responsibility is to find the material, read for deeper understanding and find opportunities like this to have practical validation”***, Dr. Allotey said.

Ms. Alberta Blay, coordinator of the Ghana's siting group, was happy that Ghana has been quite successful with its phase-one siting activities and have the opportunity to learn a lot from the

experiences of Eskom's second nuclear build, which is in phase 2. She observed that the required studies and analyses cut across the disciplines of engineering, environmental science, radiochemistry, geology, hydro-geology, geochemistry, hydrochemistry, GIS applications etc. so there is the urgent need for individuals to build capacity and competency in order to ensure efficient delivery. She said, ***“we need to build capacity and competency like Eskom has done and to improve efficiency. I find studies on atmospheric dispersion, population mapping and distribution very interesting.”***



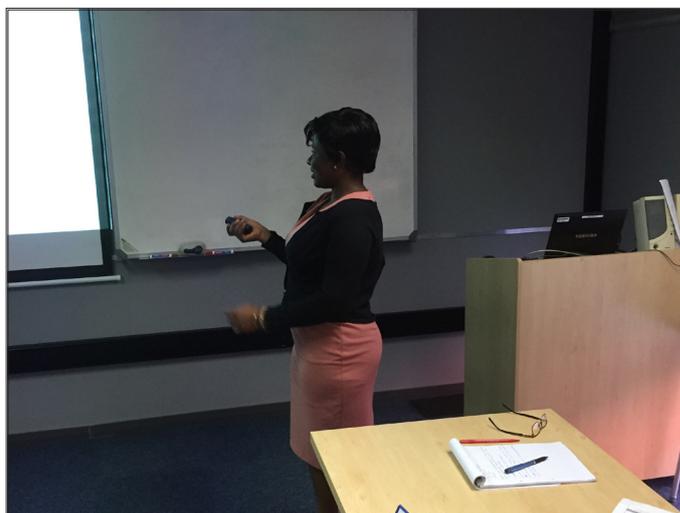
***The Koeberg Power Plant: Two Units with Total Installed Capacity of 1940 MW***



***The Ghana Siting Team at a Briefing Session Before Touring the Koeberg Nuclear Power Plant***



***PRDW, Consulting Engineers, Make a Presentation on Ocean Flooding Analysis***



***Ms. Alberta Blay, Making a Presentation on Ghana's NPP Siting Activities***