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Inspection of Reactor Vessel and Pool for Ghana's MNSR after Core Removal

H. C. Odoi, A. G. Ampong, P. Dordoh-Gasu, H. K. Obeng, R. E. Quagraine, National Nuclear Research Institute – Ghana Atomic Energy Commission, Atomic Road, Kwabenya – Accra, Ghana

L. Yiguo, D. Peng, J. Hong; X. Wu, Q. Hao China Institute of Atomic Energy – Division of Reactor Engineering and Technology Beijing Box 275, Binning 34

ABSTRACT

Ghana acquired a Miniature Neutron Source Reactor in the mid 90's. The research reactor was operated for over twenty years using a Highly Enriched Uranium (HEU) fuel. In 2006, plans were made to convert the fuel to Low Enriched Uranium (LEU). Feasibility studies, which include neutronics and thermal hydraulics analyses, were completed in 2012 and implementation plans commenced almost immediately. A thorough inspection of the vessel and the pool structures were performed after the HEU fuel was remove from the vessel to ascertain their reliability. This article provides an insight into the outcome of the inspection activity.