RERTR 2017 - 38th International Meeting on Reduced Enrichment for Research and Test Reactors

NOVEMBER 12-15, 2017 EMBASSY SUITES CHICAGO DOWNTOWN MAGNIFICENT MILE HOTEL CHICAGO, IL USA

Report on NIRR-1 Conversion Activities: From LEU Feasibility Search To Conversion Proper

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ABSTRACT

In 2006, the International Atomic Energy Agency (IAEA) initiated the Coordinated Research Project (CRP) entitled "Conversion of Miniature Neutron Source (MNSR) facilities from HEU to LEU". Under the aegis of the IAEA CRP and RERTR programme, the LEU feasibility search was performed to identify suitable LEU candidates for the conversion of MNSR facilities to LEU. Following the successful completion of the CRP in 2012, activities have shifted to the conversion proper with the successful completion of the prototype MNSR in China in 2016 and the first commercial facility outside China, the Ghana Research Reactor-1 (GHARR-1) in 2017. This paper discusses highlights of LEU conversion activities of the Nigeria Research Reactor-1 (NIRR-1) from feasibility studies in 2006 to date. NIRR-1 is the second commercial MNSR scheduled for conversion in 2018.