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**Continuing LEU Conversion Activities at the  
High Flux Isotope Reactor**

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**ABSTRACT**

ORNL has collaborated with the US reactor conversion program since 2005 to convert HFIR to LEU fuel. During 2016, neutronics analyses were formally issued for both the current HEU fuel and an interim LEU design with a representative core arrangement to evaluate key performance metrics pre- and post-conversion to ensure that HFIR's world-class performance will be preserved for neutron scattering, isotope production, and materials irradiation. A legacy thermal-hydraulics code is being tailored for LEU fuel analysis while state-of-the-art multi-physics models were developed to demonstrate that adequate safety margins can be maintained. In 2017, these codes will be used to perform an LEU fuel design optimization study. ORNL continued to coordinate with the reactor conversion program in fuel testing, qualification, and fabrication to ensure that a converted HFIR is safe, reliable, cost-effective, and meets regulatory requirements. Plans for 2017 and beyond will be discussed and key issues will be highlighted.