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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. During 2015, four key metrics were selected to ensure that HFIR's world-class performance will be preserved post-conversion for neutron scattering, isotope production, and materials irradiation. Explicit neutronics models were developed for representative HEU and LEU cores to baseline performance against the metrics for future fuel design optimization studies. 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. ORNL coordinated with the reactor conversion program in fuel testing, fabrication, and qualification to ensure that a converted HFIR is safe, reliable, and meets regulatory requirements. ORNL continued the "safety-in-design" process to document assumptions and plans for HFIR LEU conversion. Plans for 2016 and beyond will be discussed and key issues will be highlighted.