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**USHPRR Fuel Fabrication Capability Pillar
Baseline Process and Alternatives**

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ABSTRACT

The Fuel Fabrication Capability Pillar, a project within U.S. High Performance Research Reactor Conversion program of the office of NNSA's Material Management and Minimization (M3), is tasked with the scale-up and commercialization of the high-density monolithic UMo fuel for the conversion of appropriate research reactors. The FFC Pillar has made significant steps to demonstrate the baseline co-rolling process using commercial-scale equipment. This has led to the initiation of the fabrication of the next irradiation experiment: MP-1. A detailed process flow diagram has been developed to identify potential gaps in knowledge or demonstration, which leads to the direction of the R&D program that is maintained in the FFC program. Significant FFC Pillar accomplishments have been made over the past year and future plans have been developed to continue to demonstrate the baseline process and other process optimizations and alternatives for increasing process yield and decreasing lifecycle waste and costs.