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**USHPRR Fuel Fabrication Pillar  
Process Optimizations & Future Plans**

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**ABSTRACT**

The Fuel Fabrication 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 FF Pillar has made significant steps to demonstrate and optimize the baseline co-rolling process using commercial-scale equipment. This demonstration includes the fabrication of the next irradiation experiment: MP-1. The FF Pillar utilizes a detailed process flow diagram to identify potential gaps in processing knowledge or demonstration, which leads to the direction of the strategic agenda of the Pillar. Significant FF Pillar accomplishments have been made over the past year and future plans have been developed to continue to demonstrate and optimize the baseline process to increase process yield and decrease lifecycle waste and costs.