

Title: Advanced Test Reactor Capabilities

Authors: Nathan Manwaring and Matthew Johnson

University of Idaho

Abstract:

The Advanced Test Reactor (ATR) provides key irradiation capabilities for enabling development of nuclear science and engineering. This presentation covers 1) Thermal flux possible in ATR, 2) Typical powers/fluxes, 3) Experiment position sizes, 4) Basket/shield material experience to harden spectrum, and 4) Benchmark cases for neutronics codes. The companion ATR Critical facility ATRC) is a pool-type reactor. This presentation includes ATRC Typical powers/fluxes and Basic test plan pipeline.