

**RERTR 2018 – 39TH International Meeting on
Reduced Enrichment for Research and Test Reactors**

**November 4-7, 2018
Sheraton Grand Hotel and Spa
Edinburgh, Scotland**

Generic Test Plate Assembly Flow Testing Update 2018

W.F. Jones¹, C.J. Jesse¹, J.C. Kennedy¹, A.M. Phillips¹, W.R. Marcum², A.W. Weiss²

¹Idaho National Laboratory, Experiment Analysis Department, Nuclear Science & Technology
2525 Fremont Ave., Idaho Falls, Idaho, 83415 – USA

²Oregon State University, Department of Nuclear Science & Engineering
100 Radiation Center, Corvallis, OR, 97333

ABSTRACT (Arial, 12Pt, Bold)

The Generic Test Plate Assembly matrix flow tests at Oregon State University's Hydro-Mechanical Fuel Test Facility have concluded. A summary of the test matrix and preliminary results will be presented. Additionally, an overview will be provided of the various process improvements that were implemented to ensure expeditious and accurate collection of high resolution plate deformation data. Discussion will cover the LUNA system: a real-time laser interferometer that provides deflection data along a continuous path on the plate, the bend tester: an apparatus used to both verify the quality of the strain gauge and collect strain sensitivity readings to be used during flow tests, and the plate scanner: a translated profilometer used to collect pre- and post-flow surface information for post-processing the deformed shapes of the plates. The response of the various surrogate fuel plate types will be compared and discussed.