Experimental Benchmarking of FENDL-2.1 with Impact of ENDF/B-VII.0 Data
T.D. Bohm, M.E. Sawan, P. Wilson Fusion Technology Institute, University of Wisconsin-Madison, USA
P. Batistoni, R. Villari ENEA Frascati Research Center, Italy

Introduction
- The IAEA has developed the Fusion Evaluated Nuclear Data Library (FENDL)
- FENDL-2.1 has 40 of its 71 isotopes taken from ENDF/B-VI.8
- ENDF/B-VII.0 has been recently released (Dec. 2006)
- Want to examine the effect of new data using four fusion specific experimental benchmarks (ITER relevant)

FNG Benchmark Experiments
- Streaming experiment
- FNG 14.1 MeV Source
- Tungsten experiment
- Bulk shield experiment
- HCPB breeding experiment

Tungsten experiment foil results

Bulk shield experiment foil results

Streaming experiment foil results

HCPB experiment T production

Conclusions
- Calculations of foil activation rates using ENDF/B-VII.0 data were not significantly different than calculations using FENDL-2.1 data
- Calculations of tritium production using ENDF/B-VII.0 data were similar to calculations using FENDL-2.1 data
- Updating FENDL with ENDF/B-VII.0 data is not urgently needed for ITER