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SUBJECT: INCIDENT NEUTRON ENERGY AND FISSION FRACTION STUDY FOR THE CRITICAL EXPERIMENTS FROM THE VALIDATION OF THE CSAS25 SEQUENCE IN SCALE-4.4 (238-GROUP ENDF/B-V CROSS SECTION LIBRARY) FOR HOMOGENEOUS SYSTEMS AT THE WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY

Reference:

1. LTR-ESH-05-146, Rev. 1, *Validation of the CSAS25 Sequence in SCALE-4.4 and the 238-Group ENDF/B-V Cross Section Library for Homogeneous Systems at Westinghouse Columbia Fuel Fabrication Facility.*

Objective

The objective of this letter is to determine if a trend in the calculational methodology bias, documented in Reference 1, occurs as a function of incident neutron energy when the energy spectrum is divided into thermal, intermediate, and fast ranges. To meet the objective, the experiments validated in Reference 1 are used to create a fission fraction weighted energy causing fission for each energy range investigated.

Methodology

