

## CSSG TASKING 2014-02

Date Issued: June 4, 2014

**Task Title:** *Validation with Limited Benchmark Data*

### **Task Statement:**

ANSI/ANS-8.24 provides guidance on performing validations of computer codes for criticality safety analyses. However it provides little in the way of guidance if the benchmark data set for any specific element or isotope, to be specifically credited for some feature (e.g. neutron absorption) is of limited quantity (e.g., in the specific case of titanium there are two critical benchmarks). The CSSG is directed to evaluate and propose additional guidance for evaluating cases with limited quantity benchmark data into an appropriate validation.

The guidance provided should address the determination of the bias, bias uncertainty, and the validation adequacy, in compliance with the intent of ANSI/ANS-8.24. Guidance should also be provided on what additional data or considerations (e.g., consideration of differential data, evaluated data uncertainties) would be necessary for an acceptable validation approach?

Finally, the CSSG should consider populating the guidance with a specific example (e.g., titanium absorption in a thermal spectrum).

### **Resources:**

CSSG Task 2014-02 Team Members:

- Fitz Trumble, CSSG Team Leader
- Dave Heinrichs, CSSG
- Tom McLaughlin, CSSG
- Glenn Christenbury, CSCT

Contractor CSSG members of the team will use their FY14 NCSP CSSG support funding as appropriate; DOE CSSG members of the team will utilize support from their site offices. It is up to the team members to utilize other expertise, or include other interested parties, as can be made available to support the tasking, without incurring additional CSSG expenses. No travel is anticipated to be necessary to support this tasking.

**Task Deliverables:**

1. CSSG Subgroup to hold task 'kickoff' telecom by June 16, 2014
2. CSSG Subgroup to provide draft guidance to full CSSG for review: July 30, 2014
3. Full CSSG to provide review of guidance to Task Team Leader: August 28, 2014
4. CSSG Subgroup to provide finalized guidance to NCSP Manager: September 30, 2014

**Task Completion Date: September 30, 2014**

Signed:   
Jerry N. McKamy, Manager US DOE NCSP  
Director NA-00-10