

Date: 24FEB2023

Subject: CSSG Face-to-Face Meeting

Participants:

Present –Brady, Bowen, Chambers, Henley, Erickson, Hayes, Heinrichs, Hopper, Kimball, Morman, Reynolds, Wilson, John Miller (SNL), Todd Davis (DNFSB staff), Braden Saltus (DNFSB staff), Kimball, Alwin, Hicks, Zerkle

Virtual- Trumble, Eberle

Welcome/Introduction	Hayes
CSSG Minutes from previous meetings	Brady
Status Actions from Self-Assessment	Brady
Status Tasking 2022-03 LANL Request for NCS Assistance	Morman
DNFSB Complex-Wide Review of NCS	Hayes
Proposed Taskings <ul style="list-style-type: none">Review of criticality safety infractions across the DOE Complex: Complex-wide TrendsEmeritus Members: Define Emeritus Member Roles	All
Roundtable	All
Next Meeting	All

Discussion:

Welcome/Introductions

Cris Eberle (chair of CSCT) participating in first CSSG meeting as an ex-officio member. Todd Davis and Braden Saltus, both DNFSB staff from Washington, D.C. were welcomed for their participation in both the Technical Program Review (TPR) as well as the CSSG meeting.

CSSG Minutes from Previous Meetings

Minutes from meetings on November 17 (Phoenix) and virtual meetings on December 8 and January 19 were provided for review and comment by the at-large CSSG. One correction was made to the Nov 17 minutes. All were approved for submission to Angela.

Status Actions from the Self-Assessment (SA)

Good progress is being made on the actions from the CSSG SA (Tasking 2022-02). The SA tracking matrix was updated and is included in these minutes.

Status of Tasking 2022-03 (Morman)

Draft report was distributed to at-large CSSG. Comments due no later than 3/1/23.

Discussions regarding the final report centered around the purpose/goal of the review to ascertain if the LANL mission goal of 30 ppy could be met safely with the current state of the LANL NCS Program. The report is consistent with the recommendations made in the outbrief at LANL. Although the conclusion is affirmative to the question, there were concerns by the entire team regarding the long-term health of the program. The hope is to actively engage in the LANL response but concerns that there is no senior management champion for the program and that this may indicate a repeat of history. Staff turnover, over-reliance on subcontractors and limited technical experience of on-site staff are the key indicators for this concern. A program breakdown would clearly threaten the LANL mission. The concern is beyond simply the LANL program. Local DOE should take an active role in the LANL response and follow-through to the recommendations made in this report.

Changes were suggested to modify the Executive Summary of the report to flag these concerns.

DNFSB Complex Wide Review of NCS

The DNFSB visit to SRS facilities happened in February. A return visit is planned the week of April 10 to discuss responses to the DNFSB Criteria/LOIs. Plans are underway to schedule visits to LANL and Y-12.

Proposed Taskings

This was largely discussed as part of the SA action tracking.

- Review of criticality safety infractions across the DOE Complex – McLaughlin has the action to draft Tasking. Concerns about the diversity of what is and isn't reported across the sites was discussed. There are concerns that the Tasking should not interfere with the current practices agreed upon by contractors and DOE site offices. Similar concerns were encountered in the past when attempts were made to perform similar taskings. McLaughlin was involved in the past and will attempt to draft a tasking scope that will ameliorate these concerns.
- Brady has the action to sketch out what the potential role of Emeritus members could be and establish the scope of the Tasking. Discussion centered around the potential roles for Emeritus members. The CSSG SA tasking had identified the potential for Emeritus members to take an active role in mentoring new/potential CSSG members, especially in areas like DOE orders and standards. Practical concerns like the mechanism for funding Emeritus members are beyond

the scope of this Tasking. Funding for the CSSG is managed by the NCSP Task Manager, Doug Bowen. Calvin Hopper and Kevin Kimball agreed to assist Brady.

Roundtable:

- Calvin Hopper raised some concerns regarding the performance and coordination among integral criticality measurements, differential neutron cross section measurements and neutron cross section evaluations. Specifically,
 - Actual measurements of spatial neutron energy spectra or reaction rates (not just calculations) within new, or re-evaluated, critical configurations under the auspices of the CEdT and IER processes are almost always not performed (Sanchez stated that acquiring reaction-rates/spectra-indices was not a priority for experiments planned via the CEdT process).
 - The process for identifying, prioritizing, and performing differential neutron cross-section measurements is not formalized similarly to the CEdT and IER process used for performing integral experiments (Zerkle stated that an NDAG process similar to the CEdT process would impact both the cost and timing for performing differential experiments and was not seen as necessary or desired).
 - Neutron cross section evaluations that can be influenced by new, or re-evaluated, integral critical experiments generally do not benefit from actual spatial neutron energy spectral or reaction rate measurements.
 - Integral critical experiments, with actual spatially-dependent reaction rates, can provide for more realistic evaluations and adjustments of neutron cross section values and reduce their compensating errors. The NCSP should provide documentation of judgements as to why such reaction rate measurements will, or will not, be accomplished during new integral critical experiments within the CEdT process.
- Heinrichs identified the need for detailed ICSBEP benchmark evaluations for Godiva and Flattop as well as the desirability of including reaction rate measurement results and spectral indices in these evaluations.
- Angela Chambers discussed potential changes to modify/delete section 6 regarding the DSA interface in DOE-STD-3007-2017(reaffirmed). She was recently made aware of concerns brought up by DOE-EM regarding this section and the elevation of criticality controls to the DSA level. Angela will set up a meeting to discuss these concerns. Kevin Kimball was asked to participate. The meeting will tentatively be held at Oak Ridge in about 6 months.
- Mikey Brady noted the there was discussion of new measurements of beta-effective in the TPR. These too will be impacted by the energy spectrum. This information should be characterized or document why not.
- Jen Alwin suggested that the TPR consider video recordings of presentations to be posted to website rather than just the slides themselves.
- Also, it was suggested that presentation materials be made available prior to or at the TPR.

Next CSSG Meetings:

- Next Teams meeting scheduled for March 2 was cancelled due to proximity to this meeting. Teams meetings have been scheduled for every six weeks.
- The next Face-to-Face meeting will be with the ANS Annual meeting in Indianapolis. We will attempt to schedule on the afternoon of Thursday, June 14, 2023.

The meeting was adjourned.

Recommendation Category	Specific Recommendation	Status
Revise Charter and Work Instruction	1, 2a, 2b, 2c, 3, 5, 8, 9, 10, 15, 16, 17, 18, 19	Approved by NCS Manager and posted to NCSP website COMPLETE
Proposed Taskings	6 DOE-wide review of criticality safety infractions	McLaughlin ACTION to draft
	21 Define emeritus member role	Brady ACTION to draft
NCSP Manager Action	7 Improve DNFSB staff interface	COMPLETE
	13 Establish DOE Regulatory Liaison role with CSSG	ACTION Angela to contact Garrett Smith
	20 Decide if mentoring is in the CSSG scope	COMPLETE Angela confirms mentoring potential new CSSG members in scope
CSSG Chair/Deputy Chair Action	4 Schedule regular calls on 6-week basis	Teams Meeting established through OCT 2023 COMPLETE
	11 Post CSSG technical presentations on the NCSP website	In Progress: Hayes request add "Presentations" tab to where CSSG minutes are posted on NCSP website
	12 Select CSSG member (Current or Emeritus) to function as CSSG Regulatory Liaison	In Progress
	14 Post CSSG briefings to DOE at discretion of NCSP Manager on the NCSP website	Pending addition of Presentations tab