

CSSG TASKING 2020-04
Date Issued: September 21, 2020

Task Title:

- CSSG Technical Assistance to NNSA-SR Related to the SRPPF Project.

Task Statement:

The CSSG has been requested to provide technical guidance for the implementation of criticality safety for the Savannah River Plutonium Processing Facility (SRPPF) Project in support of NNSA-SR. Specific consideration should be given to reviewing criticality safety and other related documents that support the SRPPF CD-1 submittal. Guidance shall include recommendations to resolve identified issues and proposed alternative approaches as appropriate.

The following topics should be considered under this Tasking:

- SRPPF strategy for addressing criticality for NPH events, including the Safety Design Strategy (SDS), the CDNS Safety Advice Memo and the Conceptual Safety Design Report (CSDR).
- EA-31 comments, and SRPPF responses if available, on the SDS regarding criticality safety.
- Material handling approaches, including any interaction vulnerabilities – both within and in-between process modules.
- Proposed Criticality Accident Alarm System (CAAS).
- Preliminary Nuclear Criticality Safety Evaluations (PNCSEs).
- Overall criticality safety program as it pertains to SRPPF.
- Waste Management System related to material handling, assay and waste storage configurations.
- Material-At-Risk (MAR) documents.
- Dose assessment evaluation and ensuing shielding related to criticality safety.
- Criticality accident dose consequence to the MOI and collocated worker (if available).
- Interaction between criticality safety and fire suppression
- Implementation of the Process Analysis requirement vs the Double Contingency Principle recommendation.
- CD-1 and the SDS/CSDR as a sufficient “design of record”

Period of Performance:

- Based on the availability of the SRPPF Design Packages and applicable PNCSEs, the task effort should kick-off with the NNSA briefing telecon on September 17, 2020. Documents, including the CSDR, will be provided as they become available, and all should be available by October 30, 2020. The final CSSG review document, including all recommendation, etc., should be available for posting to the NCSP website by November 23, 2020.

Resources:

CSSG Task 2020-04 Team Members:

- M Brady-Raap (Team Lead)
- DP Heinrichs
- KD Kimball
- TP Mclaughlin
- DG Bowen (Ex-officio)

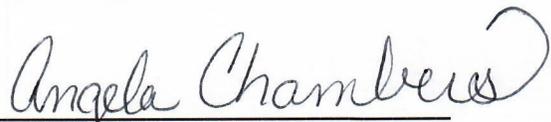
CSSG members will use their FY21 NCSP CSSG support funding as applicable. Emeritus and Ex-officio Members will receive NCSP funds

Task Deliverables: (All dates are Tentative)

1. The Task Team will participate in a kick-off/NNSA briefing on September 17, 2020. Documents will be provided as they become available.
2. Task Team prepare a draft for full CSSG review by November 9, 2020.
3. Full CSSG provide review comments by November 16, 2020.
4. Task Team provide final version of document to NCSP Manager for posting by November 23, 2020.

Task Completion Date: November 23, 2020

Signed:

A handwritten signature in cursive script that reads "Angela Chambers". The signature is written in black ink and is positioned above a horizontal line.

**Angela Chambers, Manager US DOE NCSP
Office of the Chief of Defense Nuclear Safety, NA-511**