

CRITICALITY SAFETY (CS)

Objective CS.1 – A criticality safety program is established, sufficient numbers of qualified personnel are provided, and adequate facilities and equipment are available to ensure criticality safety support services are adequate for safe operations. (Core Requirements 1, 2, and 6)

Criteria

- Functions, assignments, responsibilities, and reporting relationships are clearly defined, understood, and effectively implemented.
- Operations support personnel for the criticality safety area are adequately staffed and trained.

Approach

Record Review: Review the documentation that establishes the Criticality Safety Requirements (CSRs) for appropriateness and completeness. Review for adequacy and completion the criticality safety personnel training records that indicate training on facility procedures and systems under their cognizance and on system and facility hazards associated with the operations. In addition, review course contents and examinations related to general criticality safety training and selected specialized training for criticality safety engineers for adequacy and appropriateness.

Interviews: Interview the safety analysis programs personnel that support criticality safety to determine if they are familiar with their roles, responsibilities, and interfaces with the operations and engineering design organizations. In addition, interview the facility operations and engineering managers to determine their familiarity with the criticality safety organization interface.

Shift Performance: While observing normal evolutions, determine if operations personnel are cognizant of and adhere to criticality safety requirements.

Objective CS.2 – Adequate and correct procedures and safety limits are in place for OCF operations, and these include revisions for the modifications that have been made to the facility. (Core Requirement 10)

Criteria

- OCF procedures appropriately incorporate any impacts identified in the Criticality Safety Evaluation (CSE) and criticality safety requirements.
- Technically correct safety limits for fissile material control are implemented.
- The BIO, the applicable CSRs, and the CSEs are consistent and properly identify the hazards, necessary controls, and safety systems to mitigate those hazards for the OCF. The OCF CSEs and CSRs are approved and implemented. Applicable safety limits and requirements identified in the CSRs are implemented in procedures. Applicable CSEs and CSRs are in the readiness evidence files.

Approach

Record Review: Review safety basis and authorization basis documentation, including (as applicable) the double contingency analysis, Safety Evaluation Report (SER), and other safety basis documentation to assess implementation. Verify that the CSRs and controls have been incorporated and implemented into procedures and postings.

Interviews: Interview criticality safety personnel to assess (a) their understanding of their actions when responding to abnormal and emergency conditions and (b) their understanding of how these actions relate to the safety basis for operations. Assess their understanding of production and safety issues. Determine if criticality safety personnel are knowledgeable of operations and the criticality safety issues related to operations.

Shift Performance: While observing operations, verify that criticality controls have been effectively implemented.