

**Activity: Control of Design Inputs**

1.0 Purpose: This guideline provides a method to evaluate the plant's practices for the control of design inputs.

2.0 Scope: This guideline has been developed for use in the review and evaluation of the following areas.

E Engineering procedures have been established and implemented to ensure that design inputs are identified, documented, reviewed, approved, used and retained as quality records.

E Administrative controls and practices have been established and implemented to ensure that design input documents are reproduced, filed, protected and retrievable.

3.0 References:

3.1 ANSI N45.2.11, "Quality Assurance Requirements for the Design of Nuclear Power Plants"

3.2 NRC Inspection Module 37990B, "Design Input."

4.0 Guidelines

4.1 In preparation for an during the conduct of this surveillance:

- Obtain and review implementing procedures, instructions, and drawings governing this activity.

- Prepare a guide or checklist using the selected items from m this guideline.
  - Review past surveys, audits, surveillances, and other evaluations or assessments.
  - Ensure that checklists include where applicable, actual observation of performance, general plant conditions, radiological work practices, housekeeping, work document control and use, and safety practices.
- 4.2 Select a representative sample of design inputs to verify engineering and administrative instruction implementation. Selection of completed and in-process, design-input, controls documentation should be made to cover all functional disciplines in which design inputs are generated (e.g., civil, mechanical, piping, electrical, instrumentation, chemistry).
- 4.3 Review and verify for each for the design inputs the following, as applicable:
- A. Documentation delineates specific project or modification to which the design input is applicable.
  - B. Documentation delineates the sources(s) for the design input such as a specific calculation, code, standard, or computer run.
  - C. Identification of specific design inputs considers as a minimum the following for applicability:
    - E basic functions
    - E design conditions
    - E performance requirements
    - E environmental conditions
    - E interface requirements

- E material requirements
  - E civil/structural, hydraulic, mechanical, I&C, electrical, and chemistry requirements
  - E operational, testing, maintainability and inspectability requirements
  - E failure effects
  - E ALARA, plant security and fire protection
  - E transportability, handling and storage, and,
  - E industrial safety
- D. Documentation delineates quality classification.
- E. Documentation delineates preliminary review and approval of the design input's applicability prior to the development of design output documents.
- F. Documentation delineates final review and approval of the design input at the same level as the design output documents.
- G. Documentation delineates that revisions to design output documents resulted in a reexamination of the design inputs to determine if a revision to same is needed; and,
- H. Documentation delineates that needed revisions to design inputs are implemented in accordance with the same level of review and approval as the initial design input.

## 5.0 Other Guidelines for Consideration:

### 5.1 A.1, "General Quality Surveillance Guidance"