



Westinghouse Electric Corporation
Nuclear and Advanced Technology Division

AP600

Program Operating Procedure

Subject:

AP600 SYSTEM SPECIFICATION DOCUMENTS

Approved:

H. J. Bruschi, General Manager
Advanced Technology Business Area

Effective Date

6-1-95

AUTHOR/COGNIZANT FUNCTION

Contact Manager, Systems Engineering, on questions concerning this procedure.

PURPOSE

To establish the responsibilities and requirements for preparing System Specification Documents for the AP600 plant.

DEFINITIONS

AP600 Plant Design Criteria (GW-G1-001) – This document provides plant level design criteria and is a design control document. The design criteria for System Specification Documents are to be consistent with the AP600 Plant Design Criteria, and should reference this document, as appropriate.

System Specification Documents (SSD) – Documents which identify specific system design requirements and show how the design satisfies the requirements. They provide a vehicle for controlling and documenting the formal systems design process and for transmitting system design data and interface requirements to all the affected AP600 design and analysis groups.

PROCEDURE

General

- A. An SSD is prepared for each of the plant systems. Each SSD includes the functions of the system in the plant; the overall system design criteria and objectives; a complete description of the system and its operation; requirements for individual components, for system layout, for instrumentation and control, for interfacing systems, and for monitoring and testing; expected environmental conditions and qualification requirements; and a summary of compliance with external criteria.

- B. The format and content of the SSDs shall conform to the guidance given in GW-GEP-020 (Reference A), AP600 SSD Writers Guide. In addition, each SSD shall include an AP600 Document Cover Sheet in accordance with Exhibit 10. Each SSD shall also include an AP600 Record of Changes in accordance with Exhibit 16.
- C. The list of plant systems for which SSDs are to be prepared is provided in GW-GOX-001 (Reference B), List of AP600 Systems.

RESPONSIBILITY/ACTION

The following procedure applies to the preparation, revision, and issue of a System Specification Document:

Systems Engineering
Design Group Manager

- 1. Issue a detailed writers guide for the SSDs to be prepared by the Design Groups.
- 2. Assign responsibility for the preparation of each SSD to a Systems Engineer. Assign responsibility for independent verification (peer review) and additional approvals (if any) required for design verification (for example, when the originating group lacks the expertise for complete verification).

Systems Design
Engineer

- 3. Prepare the draft SSD in accordance with the Writers Guide.
- 4. Obtain independent verification (peer review) of the SSD in accordance with WCAP-9565, DP-3.3.2, "Design Verification by Independent Review or Alternate Calculations".
- 5. Resolve all comments from design verification.
- 6. Prepare AP600 Document Cover Sheet (Exhibit 10) including signatures. Obtain required design verification approvals using AP600 Standard Internal Review Sheet, Exhibit 17.
- 7. Issue the SSD in accordance with AP-6.2, Technical Document Release and Control.

Subsequent revisions to a System Specification Document shall follow the same sequence of actions as Steps #2 through #7 above. For each revision, the Record of Changes (Exhibit 16), shall include a description of significant changes along with the reason

for the change. Approval of the revision shall be obtained from the same groups that were originally required to approve the SSD. Procedure AP-3.2 Design Configuration Change Control will also apply to SSD revisions.

REFERENCES

- A. GW-GEP-020, AP600 SSD Writers Guide
- B. GW-GOX-001, List of AP600 Systems

FORMS/EXHIBITS

AP600 Document Cover Sheet, Form 58202, Exhibit 10

AP600 Record of Changes, Form 58204, Exhibit 16

AP600 Standard Internal Review Sheet, Form 58203, Exhibit 17