CPSES

STARTUP ADMINISTRATIVE PROCEDURE

32

CP-SAP-11

REVIEW, APPROVAL AND RETENTION OF TEST RESULTS

Revision: 5

Prepared By: S. M. Franks

Reviewed By: _____
Lead Startup Engineer

Reviewed By: _____
TUGCO QA Startup/Turnover Surveillance Supervisor

Reviewed By: N.A. Title: _____

Reviewed By: N.A. Title: _____

Approved By: _____ Date: 1-4-53
Manager, Nuclear Operations

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REVIEW, APPROVAL AND RETENTION OF TEST RESULTS

1.0 PURPOSE

The purpose of this procedure is to establish the requirements and responsibilities for the review, approval and retention of test results obtained during the Startup Test Program.

2.0 APPLICABILITY

This procedure is applicable to all Prerequisite, Preoperational, Acceptance and Special Performance Test results for CPSES Units 1 & 2.

3.0 DEFINITIONS

Prerequisite Tests - Tests performed on individual components to verify complete installation, operability, cleanliness, calibration, etc. Also referred to as checkout, or initial checkout.

Acceptance Tests - Tests conducted on non-safety related station systems to demonstrate their ability to satisfactorily perform their design function.

Preoperational Tests - Tests conducted prior to fuel loading to demonstrate the capability of components, systems or structures to meet safety-related performance requirements.

Special Performance Tests - Tests conducted to demonstrate component/system performance, collect operating data or to control special testing activities. Results of Special Performance Tests will not be used to comply with test commitments in the Final Safety Analysis Report.

STE - System Test Engineer

JTG - Joint Test Group, see CP-SAP-2 for description of group function and membership

Test Record Drawing - The latest revision drawing stamped to reflect all design changes affecting the drawing. These drawings are used in the field to perform control circuit functional tests in accordance with Prerequisite Test Instruction XCP-EE-8.

4.0 PROCEDURE

4.1 Prerequisite Test Results

4.1.1 Review

The STE responsible for conducting prerequisite tests shall evaluate the test results against the test's acceptance criteria for adequacy. The STE shall signify satisfactory completion of his review in the space provided on the test data sheet or Test Record Drawing stamp for XCP-EE-8. Where space is provided on Test Data Sheets, the STE shall indicate test results as SAT or UNSAT.

If test results are UNSAT, the STE shall determine the cause of the failure and process a Test Deficiency Report in accordance with requirements of CP-SAP-16.

4.1.2 Approval

The results of prerequisite tests, except XCP-EE-8, performed on safety related equipment, shall be approved by an individual qualified as Level IV in accordance with CP-SAP-19.

Note

XCP-EE-8 test results are reviewed in accordance with Paragraph 4.1.1 and DO NOT require approval.

4.1.3 Retention

Approved test data, with the exception of XCP-EE-8, will be processed in accordance with STA-302 for storage with the permanent plant records. Test records for XCP-EE-8 will be retained in fireproof cabinets in the startup office until it is declared appropriate by the Lead Startup Engineer to process them in accordance with STA-302.

4.2 Acceptance, Preoperational and Special Performance Test Data Packages

4.2.1 Upon completion of an Acceptance, Preoperational or Special Performance Test, the responsible STE shall prepare and assemble a test data package in the order shown as follows:

4.2.1.1 Test Summary Report: The intent of this report is to provide general information as to the conduct of the test and performance of the system. A discussion of outstanding test deficiencies, including anticipated disposition and retesting requirements must be included.

4.2.1.2 Test Procedure: The completed test procedure, including cover sheet and data collected during the test, shall be attached.

4.2.1.3 Test Deviations: All test deviations shall be arranged in numerically ascending order and attached to the package.

4.2.1.4 Test Deficiencies: All test deficiencies shall be arranged in numerically ascending order and attached to the package.

4.2.1.5 Supporting Documentation: All additional documentation, such as strip chart recordings and data analysis, which may provide additional insight as to the performance of the system, shall be attached to the package.

4.2.1.6 Chronological test log: The test log, as described by CP-SAP-21, shall be included.

4.3 Special Performance Test Results

4.3.1 Review and Approval

4.3.1.1 Special Performance Test data packages shall be reviewed by the test engineer responsible for conducting the test to ensure that the test data package is complete, all required data has been recorded and that specified acceptance criteria has been met.

Note

Test deficiencies shall be processed in accordance with CP-SAP-16.

4.3.1.2 Special Performance Test data packages shall be reviewed by an individual, other than the Test Engineer responsible for conducting the test, that is qualified as Level IV in accordance with CP-SAP-19.

4.3.1.3 Special Performance Test data packages shall be approved by the Lead Startup Engineer.

4.3.2 Retention

Approved Special Performance Test data packages will be retained in the startup group files.

Note

Special Performance Test data is recorded for information only, therefore, is not classified as a plant record.

4.4 Acceptance Test Results

4.4.1 Review and Approval

4.4.1.1 Acceptance Test results shall be reviewed by the Test Engineer responsible for conducting the test to ensure that the test data package is complete, all required data has been recorded and that specified Acceptance criteria has been met. The Test Engineer shall sign the test summary report to indicate satisfactory completion of his review.

Note

Test deficiencies shall be processed in accordance with CP-SAP-16.

4.4.1.2 Upon completion of the Test Engineer's review, copies of the test data package will be distributed to the following individuals for technical review. Data package review guidelines are provided in Attachment A.

a. TUGCO Manager, Plant Operations
b. TUGCO Lead Startup Engineer
c. TUSI Nuclear Engineering Manager

4.4.1.3 Upon distribution of the test data package, the Lead Startup Engineer will coordinate with the Manager, Plant Operations and TUSI Nuclear Engineering Manager to obtain their signatures on the test procedure cover sheet indicating their recommendations to approve the test data package or determine corrective actions to be taken.

4.4.1.4 Upon recommendation for approval of the test data package by the Lead Startup Engineer, Manager, Plant Operations and TUSI Nuclear Engineering Manager, the Manager, Nuclear Operations will signify his approval on the test procedure cover sheet.

4.4.2 Retention

Approved test data packages will be processed in accordance with STA-302 for storage with the permanent plant records.

4.5 Preoperational Test Results

4.5.1 Review and Approval

4.5.1.1 Preoperational Test Results shall be reviewed by the Test Engineer responsible for conducting the test to ensure that the test data package is complete, all required data has been recorded and that specified Acceptance criteria has been met. The Test Engineer shall sign the Test Summary Report to indicate satisfactory completion of his review.

Note

Test Deficiencies shall be processed in accordance with CP-SAP-16.

4.5.1.2 Upon completion of the Test Engineer's review, copies of the test data package will be distributed to the following JTG members for technical review.

a. TUGCO Lead Startup Engineer
b. Westinghouse Site Manager
c. TUGCO Manager Plant Operations
d. TUSI Nuclear Engineer Manager

Notes

(1) Westinghouse Site Manager review and concurrence is required only for tests associated with components/systems supplied by Westinghouse.

(2) Data package review guidelines are provided in Attachment A.

4.5.1.3 Upon distribution of the test data package, the Lead Startup Engineer will coordinate with the JTG members identified in paragraph 4.5.1.2 to obtain their signatures on the test procedure cover sheet indicating their recommendations to approve the test data package or determine corrective actions to be taken.

4.5.1.4 Upon recommendation for approval of the test data package by the JTG members identified in paragraph 4.5.1.2, the Manager, Nuclear Operations will signify his approval on the test procedure cover sheet or return the data package to the Lead Startup Engineer for corrective action.

4.5.2 Retention

Approved test data packages will be processed in accordance with STA-302 for storage with the permanent plant records.

4.6 Review of Corrected Test Data

When test data is corrected or changed, as described by CP-SAP-21, the modified data shall be reviewed and approved as follows:

4.6.1 Test data corrected prior to approval shall be reviewed and approved in accordance with this procedure.

4.6.2 Corrections to approved test data shall be reviewed and approved in accordance with this procedure.

4.6.3 Retention of corrected test data shall be in accordance with the applicable paragraph of this procedure.

5.0 REFERENCES

5.1 STA-302, Station Records

5.2 CP-SAP-12, Deviations to Test Instructions/Procedures

5.3 CP-SAP-16, Test Deficiency Processing

5.4 CP-SAP-19, Training/Qualification Requirements for Startup Personnel

5.5 CP-SAP-21, Conduct of Testing

5.6 XCP-EE-8, Control Circuit Functional Testing

5.7 CPSES Startup Quality Assurance Plan

6.0 ATTACHMENTS

Attachment A - Test Data Package Review Guidelines

ATTACHMENT A
ACCEPTANCE, PREOPERATIONAL & INITIAL STARTUP
TEST DATA PACKAGE REVIEW GUIDELINES

I. Test Summary Report - The report contains the following information pertaining to the conduct of the test;

a) A general discussion of the performance of the system, including dates and times of significant events, equipment and system performance.

b) A discussion of outstanding test deficiencies and their anticipated disposition and retesting requirements.

II. Test Procedure - All required data has been taken, procedure steps and witness points are properly signed, test results meet the specified acceptance criteria.

III. Test Deviations - Test deviations have been processed in accordance with CP-SAP-12 and do not affect the test results obtained.

IV. Test Deficiencies - All Test Deficiencies have been either satisfactorily resolved and retested or are identified as an outstanding deficiency in the test summary report.

V. Chronological Test Log - The log is attached and all problems identified in the log have been resolved or entered on the Master Data Base. I

CPSES

STARTUP ADMINISTRATIVE PROCEDURE

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CP-SAP-16

TEST DEFICIENCY AND NONCONFORMANCE REPORTING

Revision: 8

Prepared By: S. M. Franks

Reviewed By: T. P. Miller
Lead Startup Engineer

Reviewed By:
TUGCO QA Startup/Turnover Surveillance Supervisor

Reviewed By: N.A. Title:

Reviewed By: N.A. Title:

Approved By:
Manager, CPSES Startup Date: 11-30-83

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TEST DEFICIENCY AND NONCONFORMANCE REPORTING

1.0 PURPOSE

The purpose of this procedure is to establish the requirements and responsibilities for reporting and processing nonconforming conditions identified by startup personnel.

Note

Test deficiencies are nonconforming conditions discovered during component/system operation and/or testing.

2.0 APPLICABILITY

The requirements of this procedure for reporting test deficiencies are applicable after custody of the affected component/system has been transferred from construction to TUGCO as described by CP-SAP-3. The requirements of this procedure for reporting nonconformances are applicable any time startup personnel identify such a condition, regardless of custody status. TUSI Engineering and TUGCO Construction Quality Assurance procedures used for determination and reporting of reportable deficiencies as defined by 10CFR50.55(e) are not described herein.

3.0 DEFINITIONS

Test Deficiency - A deficiency in the operating characteristics, test documentation or startup procedure compliance that renders the quality of the item or activity unacceptable or indeterminate.

Nonconformance - A deficiency in the physical characteristics or vendor and/or construction documentation which renders the quality of the item unacceptable or indeterminate.

TDR - Test Deficiency Report

NCR - Nonconformance Report

STE - System Test Engineer

Rework - The process of which a nonconforming item is made to conform to prior specified requirements. Rework such as completion, re-machining, reassembly or other necessary corrective measures shall be performed in accordance with approved procedures.

Repair - The process of restoring a nonconforming characteristic to a condition such that the capability of an item to function reliably and safely is unimpaired, even though the item still may not conform to the original requirements. Repair activities shall be performed in accordance with approved procedures, and the acceptability of the repair shall be documented and approved.

Reject (Scrap) - The determination that an item is not acceptable for use in a safety-related application and must be segregated or disposed of to preclude such use.

Accept (Use-As-Is) - A disposition which may be imposed for a nonconformance when it can be established that the discrepancy shall result in no conditions adverse to safety and that the item under consideration will continue to meet all engineering functional requirements. This disposition requires a description of the nonconformance and a justification of the item's acceptability for use.

4.0 PROCEDURE

4.1 Nonconformances shall be reported in accordance with CP-QAP-16.1 (ASME) or CP-QP-16.0 (Non-ASME).

4.2 Test deficiencies shall be reported on a Test Deficiency Report (TDR), Attachment A. TDR's shall be sequentially numbered and logged.

4.3 The TUSI Engineering Manager shall be responsible for evaluating Test Deficiency Reports to determine if the deficiency is potentially reportable to the Nuclear Regulatory Commission (NRC) as required by 10CFR50.55(e).

4.4 When defective items are replaced, the defective items shall be removed from the plant and tagged or discarded. Tagged items shall identify the item as "defective," the TDR number, and be signed and dated by the individual that tagged the item.

4.5 A TDR is not required to be issued for any failure of control circuits or equipment to perform its intended function during the conduct of a Prerequisite Test if the malfunction can be corrected by re-calibration, adjustment or incorporation of a design change.

4.6 A TDR is not required to be issued for the failure of consumable items such as fuses and indicating lights or if a component fails to operate due to actuation of protective devices if the affected component operates properly after replacement of the consumable item or resetting the protective device.

4.7 When a test deficiency is identified which will preclude further component operation or create a hazardous condition, the component shall be rendered inoperable by deenergization, isolation, etc., and safety tags placed, as appropriate, to prevent inadvertent use.

4.8 When a test deficiency is identified and the component exhibits no adverse operational or hazardous conditions, testing or operation may continue.

4.9 A TDR may be processed to allow continuation of testing if test steps or sections cannot be performed due to unusual situations such as missing equipment or inability to establish required plant conditions and the system alignment will allow continuation.

4.10 When an approved test procedure is not complied with, a TDR shall be processed. 5

4.11 Trouble shooting may be performed as required to determine the cause and/or required corrective action for test deficiencies.

4.12 If corrective action is unknown, the TDR shall be forwarded to the TUSI Engineering Manager for determination of appropriate corrective action.

4.13 The Lead Startup Engineer or his Level IV designee shall approve TDR corrective action. 4

4.14 Work required to correct a test deficiency shall be controlled in accordance with CP-SAP-6.

4.15 Retests shall be specified for TDR's, as applicable, and approved by the Lead Startup Engineer or his designee qualified as Level IV in accordance with CP-SAP-19.

Note

Special Performance Test may be specified as the required retest only if the deficiency was discovered during the conduct of a Special Performance Test.

4.16 The individual responsible for ensuring that the specified corrective action is taken shall signify completion of corrective action on the TDR log copy.

4.17 The individual responsible for ensuring that the specified retest is completed shall signify completion of the retest on the TDR original. 5

4.17.1 If the retest is satisfactory, sign "Retest Completed."

4.17.2 If it becomes apparent, during the performance or evaluation of the retest, that additional corrective action or retests is required, the responsible individual shall revise and obtain approval of the corrective action and retest in accordance with 4.19 of this procedure and implement the new corrective action and retest.

4.18 Completed TDR's and retest results shall be processed as follows:

4.18.1 If a Prerequisite test is specified for the TDR retest (see paragraph 4.18.2 for TDR retest against Acceptance, Preoperational and Special Performance Test):

a. Attach a copy of the approved retest data, except XCP-EE-8 test record drawings, to the original TDR.

b. The completed TDR, with attached copies of the retest data, will be processed in accordance with STA-302 for storage within the permanent plant records vault.

4.18.2 If a Preoperational or Acceptance test or a portion thereof is specified as the retest for a TDR identified during or after a Preoperational, Acceptance or Special Performance Test:

a. Review and approval of the completed TDR and the retest data shall be in accordance with the requirements for Preoperational, Acceptance and Special Performance Test Results described in CP-SAP-11.

b. Retain a copy of the completed TDR and retest data with the official copy of the test data package. Previously approved test data packages in the permanent plant records vault shall be supplemented with the completed TDR and approved retest data.

4.19 Changes/or corrections to TDR's shall be processed as follows:

4.19.1 Prior to corrective action approval, changes can be made by a single line through, initial and date.

4.19.2 Correction or changes after corrective action approval or to required retest after retest approval shall be made in accordance with 4.19.1 and reapproved in accordance with paragraphs 4.13 and 4.15 of this procedure.

4.19.3 Correction or changes to TDR's in Preoperational, Acceptance or Special Performance Test data packages shall be made in accordance with 4.19.1, reviewed and approved in accordance with CP-SAP-11.

4.20 The Startup Quality Specialist shall be responsible for periodically reviewing Test Deficiency Reports initiated by startup personnel, to detect and identify adverse quality trends.

4.21 The Lead Startup Engineer shall be responsible for initiating corrective action when conditions adverse to quality are indicated by the repetitive issuance of Test Deficiency Reports by startup personnel. The case of the condition and corrective action taken to prevent reoccurrence shall be documented and reported to the following, as a minimum:

a. Manager, Nuclear Operations
b. Manager, Plant Operations
c. TUGCO QA Startup/Turnover Surveillance Supervisor
d. TUGCO Startup Manager

5.0 REFERENCES

5.1 Code of Federal Regulations, Title 10, Part 50, 10CFR50.55(e)

5.2 CP-SAP-6, Control of Work on Station Components After Release from Construction to TUGCO

5.3 CP-SAP-11, Review, Approval and Retention of Test Results

5.4 CP-SAP-19, Training/Qualification Requirements for Startup Personnel

5.5 CPSES Startup Quality Assurance Plan

5.6 CP-QAP-16.1, B&R ASME Procedure, Control of Nonconforming Items

5.7 CP-QAP-16.0, TUGCO QA Procedure, Nonconformances and Deficiencies

5.8 STA-302, Station Records

6.0 ATTACHMENT

A. Test Deficiency Report Form

TEST DEFICIENCY REPORT

Startup Sys No.	Component Tag No.	TDR No.	Page __ of __

Deficiency Identified during: Test Operation Other (Circle One)	If during test, Test No:

Deficiency Description: _____

Can Component Operation Continue? YES NO (Circle One)	If NO: CP-SAP-5 Auth. No. _____ STA-605 Clearance No. _____

Engineering Evaluation required to determine Corrective Action: YES NO (Circle One)

Ref. Correspondence for Engineering Eval:

Deficiency Reported By: Date:

Corrective Action: _____

Corrective Action Approved By: Date:

Required Retest: _____

Required Retest Approved By: Date:

Corrective Action Completed: Date:

Retest Completed: Date:

Distribution: Original to Log
MSP Group
Initiator
STE
TUGCO QA Startup/Turnover Surveillance Supervisor
TUSI Engineering Mgr.
Operations Support Engineer

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