



UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA STREET, N.W.
 ATLANTA, GEORGIA 30323

Report No.: 50-395/85-03

Licensee: South Carolina Electric and Gas Company
 Columbia, SC 29218

Docket No.: 50-395

License No.: NPF-12

Facility Name: Summer

Inspection Conducted: January 14-18, 1985

Inspectors:	<u>L. E. Foster</u>	<u>2/5/85</u>
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	M. J. Davis	Date Signed
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Accompanying Personnel: W. M. Hill

Consultant: R. L. White, Lawrence Livermore National Laboratory

Approved by:	<u>W. M. Hill</u>	<u>2/12/85</u>
	W. M. Hill, Technical Assistant Division of Reactor Safety	Date Signed

SUMMARY

Scope: This routine, announced inspection entailed 142 inspector-hours at the site concerning licensee response to Generic Letter 83-28, Required Actions Based on Generic Implications of Salem ATWS Events. Areas inspected included: post trip review; equipment classification; vendor interface and manual control; post maintenance testing and modifications; and reactor trip system reliability.

Results: Of the five areas inspected, no violations or deviations were identified.

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REPORT DETAILS

1. Licensee Employees Contacted

- *O. S. Bradham, Director, Nuclear Plant Operations
- *R. H. Clapper, Nuclear Document Supervisor
- *A. R. Koon, Associate Manager, Regulatory Compliance
 - A. Monroe, Licensing Engineer
 - B. Hibler, Mechanical QA Inspector
- *S. Hunt, Associate Manager, Surveillance Systems
 - B. Norcutt, Electrician
 - J. Goldstern, Senior Reactor Operator
- *M. D. Quinton, Manager, Maintenance Services
 - C. Hair, Document Clerk
 - G. G. Putt, Manager, Scheduling and Materials Management
- *F. Lamphere, Associate Manager, Administration
 - G. L. Caudill, Associate Manager, Scheduling and Outage Management
- *G. D. Moffatt, Associate Manager, Project Engineering
 - J. W. Derrick, Associate Manager, Maintenance Engineering
 - G. G. Sault, Associate Manager, Maintenance
 - H. Kunkle, Quality Control
 - S. M. Zarandi, Electrical Engineer
 - A. Barton, Computer Services
 - J. J. Nesbitt, Electrical Supervisor
 - R. Waselus, Lead Engineer
 - R. Smith, Maintenance Engineer
 - E. Sheely, Maintenance Engineer
 - T. Riggerbach, I&C Technician
 - R. White, I&C Technician
 - J. Gesn, Lead Engineer
 - D. H. Willingham, Supervisor Elect. Maintenance
 - E. W. Zeiders, Electrician
- *G. M. Webb, Senior Procurement Engineer
 - T. C. Cromer, Electrician
- *R. M. Fowlkes, Shift Technical Advisor
 - D. Hicks, Engineer, Technical Services
 - R. Sweet, Surveillance Specialist
 - B. Williams, Supervisor of Operations
 - K. Wilson, Document Clerk

Other licensee employees contacted included engineers, inspectors, technicians, operators, mechanics, electricians, security force members, and office personnel.

NRC Resident Inspector

*C. W. Hehl, Senior Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on January 18, 1985, with those persons indicated in paragraph 1 above. The licensee did not identify as proprietary any materials provided to or reviewed by the inspectors during this inspection. The licensee was informed of the inspection findings listed below. The licensee acknowledged the inspection findings with no dissenting comments.

Unresolved Item 395/85-03-01, Clarification of Procedures for Modification Testing, paragraph 9.

Inspector Followup Item 395/85-03-02, Verify that Westinghouse Maintenance Manual has been Approved for Site Use, paragraph 9.

3. Licensee Action on Previous Enforcement Matters

This subject was not addressed in the inspection.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve violations or deviations. New unresolved items identified during this inspection are discussed in paragraph 9.

5. Background

In February 1983, the Salem Nuclear Power Station experienced two failures of the reactor trip system upon the receipt of trip signals. These failures were attributed to Westinghouse - Type DB-50 reactor trip system (RTS) circuit breakers. The failures at Salem on February 22 and 25, 1983, were believed to have been caused by a binding action within the undervoltage trip attachment (UVTA) located inside the breaker cubicle. Due to problems of the circuit breakers at Salem and at other plants, NRC issued Generic Letter 83-28, Required Action Based on Generic Implementations of Salem ATWS Events, dated July 8, 1983. This letter required the licensees to respond on immediate-term actions to ensure reliability of the RTS. Actions to be performed included development of programs to provide for post trip review, classification of equipment, vendor interface, post maintenance testing, and RTS reliability improvements. The licensee responded to Generic Letter 83-28 by correspondence with the following dates: June 8, July 15, August 31, October 20, and November 4, 1983; and February 29, and September 28, 1984. This inspection was performed to review SCE&G's current program, planned program improvements, and implementation of present procedures associated with post trip review, equipment classification, vendor interface, post maintenance testing, and reactor trip system reliability for the V.C. Summer Nuclear Station.

6. Post Trip Review

The inspector reviewed the licensee's response which described their program for post trip review. Their response described the following program:

The post trip review program is addressed and implemented by Station Administrative Procedure (SAP)-132, Off-Normal Occurrence Evaluation, Reporting and Resolution, and Operating Procedure EOP-1.1, Reactor Trip Recovery. The capability for assessing the sequence of events leading to a reactor trip is provided by the Westinghouse P-2500 process computer. Procedures clearly specify the responsibilities for reviewing trip data, preparing post trip review reports, and authorizing reactor restart.

The inspector reviewed the Off-Normal Occurrence packages generated for nine (9) reactor trips that occurred in 1984. The packages were thorough and adequately documented the events. Documentation of corrective action was also included in the record files.

The inspector conducted a review of licensee procedures and verified that procedure were consistent with licensee responses to GL 83-28. The procedures listed below were reviewed:

SAP-132, Off-Normal Occurrence Evaluation, Reporting, and Resolution, Revision 3

EOP-1.1, Reactor Trip Recovery, Revision 0

EOP-1.0, Reactor Trip/Safety Injection, Revision 0

SAP-421, Shift Technical Advisor, Revision 1

SAP-120, Plant Safety Review Committee, Revision 1

SAP-147, Operating Experience Review Program, Revision 3

SAP-134, Control of Station Surveillance Test Activities, Revision 2

SAP-200, Conduct of Operations, Revision 2

A Reactor Trip Recovery Evaluation, Attachment 1 to EOP-1.1, and an Off Normal Occurrence Report, Attachment 1 to SAP-132, are initiated for each reactor trip. The Shift Supervisor is responsible for initiating the reports and receives inputs from operations personnel and the Shift Technical Advisor (STA). The reports forms provide a systematic method for determining the causes of reactor trips, evaluating the proper functioning of safety-related equipment, and making the decision whether the plant can be safety restarted.

The following documentation was assembled by the licensee to compile the post trip review reports. This documentation included the following information:

Process computer alarm printout

Process computer post trip review printout

Technical Support Center computer post trip review printout

Recorder Charts

First out annunciators

Statements from personnel involved, if necessary

The inspector also confirmed that a safety assessment was required as part of the post trip review. Procedures specify that if all of the following conditions are met, plant restart can be authorized:

The STA, Shift Supervisor, Control Room Supervisor, and Reactor Operator agree on the cause of the trip.

All question resulting from the Reactor Trip Report Review and any other discrepancies noted have been resolved with proper corrective actions taken.

No Technical Specification LCO's preclude Mode escalation.

Concurrence from Plant Management (either the Director, Nuclear Plant Operations, Manager Operations, or Supervisor of Operations).

If the cause of the trip cannot be determined, or if there are outstanding discrepancies, entry into Mode 2 is prohibited until concurrence is obtained from the Director, Nuclear Plant Operations. A Plant Safety Review Committee meeting may be convened to review the occurrence prior to restart.

Interviews revealed that plant personnel preparing and/or reviewing the post-trip documentation were familiar with plant systems, equipment, and plant operation. Training had been performed and rescheduled periodically and that training records were being maintained.

Procedures provide for review of information from the trip and comparison with information derived from normal or expected operations and previous shutdown from similar situation.

Site procedures provide for the identification of Post Trip Review reports and accompanying data as QA records and for storage of the records in the proper location in a timely manner.

Within the areas examined, no violations or deviations were identified.

7. Equipment Classification

The inspector reviewed the licensee's response which described their program for equipment classification. Their response described the following program:

The licensee stated that the FSAR, Engineering design documents, and the Computerized History and Maintenance Planning System (CHAMPS) listing are utilized to identify the safety classification of components. The licensee states that when activities defined in 10 CFR 50, Appendix B are to be performed, both the organization which will perform an activity and the Quality Services organization verify proper classification of components. If the safety classification of the affected components cannot be clearly determined, engineering will perform an evaluation to determine proper equipment classification. The licensee further stated that SCE&G Operational QA Program requires that any materials integral to or in contact with these systems, components, or structures are treated as safety-related unless declassified to non-nuclear safety by engineering under the design control program.

The inspector reviewed appropriate licensee documents (such as procedures, FSAR, and computer printouts) and interviewed responsible licensee personnel to confirm that the licensee's program for equipment classification was adequate and consistent with their response to Generic Letter 83-28. The following procedures and documents were reviewed:

Station Administrative Procedure, SAP-146, Revision 1, Nonconformance Control

Station Administrative Procedure, SAP-301, Revision 1, Implementation of Maintenance Work Requests, Preventative Maintenance and Surveillance Test Task Sheets and Shop Work Orders

Station Administrative Procedure, SAP-601, Revision 1, Application, Scheduling and Handling of Maintenance Activities

Station Administrative Procedure, SAP-605, Revision 0, Application of CHAMPS

Technical Services Procedure, TS-114, Revision 2, Structures, Systems, and Equipment Classifications

Maintenance Engineering Procedure, MEP-102, Revision 0, Engineering Review of Maintenance Work Requests

V. C. Summer Final Safety Analysis Report, Sections 3.2, 3.11 and 7.2

Computerized History and Maintenance Planning System (CHAMPS) Listing

The inspector confirmed that the licensee's program for equipment classification included the following elements:

Plant and component controls for classification of structures, systems, and components as safety-related were being implemented.

Personnel participating in activities impacting safety-related structures, systems, and components were aware of the appropriate level of QA controls.

Written directives assigned principal responsibility for satisfactory completion of procurement, maintenance, and modification activities associated with safety-related structures, systems, and components.

Repairs, maintenance, or modifications to equipment to correct failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances were performed, documented, and reviewed to determine reliability of replacement components.

The inspector further confirmed the above items by interviewing site and corporate personnel and by reviewing procedures and other appropriate documents.

The licensee has developed Station Administrative Procedure, SAP-605, Revision 0, which provides an overall view of how the Computerized History and Maintenance Planning System (CHAMPS) Listings are being used at V. C. Summer Plant. The procedure states that CHAMPS is a computerized copy of the Nuclear Engineering "Q" List. This procedure also provides instructions for how to input and validate data.

The licensee indicated that the CHAMPS list is the primary document used to determine equipment classification. The CHAMPS program was developed using equipment lists reviewed and approved by the Architect Engineer and Nuclear Steam System Supplier (NSSS). This information was used to develop the CHAMPS list. Approximately 50,000 system components have been inputted into the CHAMPS program as of this date. The licensee stated that the CHAMPS list only identifies major components, not individual parts. The licensee indicated that CHAMPS has not been 100% verified. Several of the data fields required for equipment classification have not been validated. These fields are blank or have been filled with question marks. The licensee indicated that if maintenance is required on a component and the classification has not been given on CHAMPS, then plant procedures require the more conservative classification to be used. However, final determination of component classification must be made by Nuclear Engineering on Form TS 114 prior to the maintenance work request being closed. The licensee also stated that only four of CHAMPS data fields are protected. These are the four fields which provide equipment classification data. The data fields are identified as equipment identification, safety class, QA class, and seismic class.

The licensee has provided remote terminal capability to do on-line searches of the CHAMPS program. In addition, printouts of the CHAMPS equipment lists are also maintained.

The inspector reviewed the CHAMPS Computer Listing and found that the reactor trip breakers are identified as QA Class 1. To verify that the licensee was properly classifying components on work documents the inspector conducted a review of in-process Maintenance Work Requests Nos. WR85G0001 and WR8402431; and completed Work Requests Nos. WR84I0638, WR8500037, WR10240 (XPN2006), WR10240(XPN2007) and WR10240(XPN2008). The documents were found to be properly classified, reviewed and approved in accordance with procedures.

Within the area examined, no violations or deviations were identified.

8. Vendor Interface and Manual Control

The inspector reviewed the licensee response which described their program for vendor interface and control of vendor technical information. Their response described the following program:

Licensee response dated November 4, 1983 stated that the majority of the Reactor Trip System components were originally supplied by Westinghouse (W) and that current updates were supplied by W Technical Bulletins. The licensee acknowledges receipt of the information by written confirmation. All technical information received from other vendors which has an impact on plant design, maintenance, and safe operation is distributed to appropriate licensee organizations for action.

When replacement equipment or parts are ordered for safety related equipment, they are procured by approved procurement procedures and the procurement packages are reviewed by a newly organized Procurement Engineering Group.

Further licensee responses dated February 29, and September 28, 1984 stated that SCE&G is an active member of the Nuclear Utility Task Action Committee (NUTAC) which has formulated the Vendor Equipment Technical Information Program (VETIP). This program utilizes existing utility/vendor contact, the INPO managed Nuclear Plant Reliability Data System (NPRDS), and Significant Event Evaluation and Information Network (SEE-IN) Program. The licensee has developed procedures based on the above program recommendations to help improve vendor interface and manual control. Significant Event Reports (SERs), Significant Operating Event Reports (SOERs), and NPRDS data from INPO, plus NRC Notices, Bulletins, Generic Letters, and Inspection Reports are reviewed and pertinent information is included in plant procedures and instructions as applicable.

The inspector reviewed licensee procedures relative to vendor interface and control of vendor technical information. This review confirmed that the procedures were consistent with the licensee submittal and were being implemented and maintained. The licensee's continuing program assures that

vendor information is complete, current, and controlled throughout the life of the plant. Procedures reviewed are listed below:

Plant Document Procedure PDP-101, Document Control Procedure, Revision 2

Technical Services Procedure TS-144, Review and Processing of Vendor Maintenance and Instruction Manuals, Revision 0

Technical Services Procedure TS-126, Safety Related and Quality Related Procurement, Revision 1

Maintenance Engineering Procedure MEP-103, Review of Vendor Technical Manuals, Revision 0

Station Administrative Procedure SAP-139, Procedures Development, Review, Approval, and Control, Revision 6

Management Directive No. 17, Review of Other Utility Operating Experience, Revision 3

Nuclear Licensing Procedure NL-113, Vendor Technical Correspondences, Revision 1

Nuclear Licensing Procedure NL-102, Distribution, Review, and Processing Various Regulatory Documents, Revision 5

Nuclear Licensing Procedure NL-104, Licensing Activities, Revision 4

Station Administrative Procedure SAP-147, Operating Experience Reports, Revision 3

Station Administrative Procedure SAP-137, Procurement, Revision 2

The inspector selected several vendor technical manuals from the Manual Index Listing for examination. These manuals were approved, stored, and controlled, as required by procedures. Following is a list of vendor manuals examined:

IMS-94B-451-0, Hydrogen Recombiner (Copy No. 1)

Instruction Book IMS-94B-177-0, 3 Phase, Power Transformer, Copy No. 102

Instruction Book IMS-94B-468-0, Controlled Copy No. 365, Low Voltage Switchgear (RTS Switchgear)

Instruction Book IMS-94B-1012-0

Instruction Book IMS-94B-903, Installation, Operation and Maintenance of Radiation Monitoring Equipment

Instruction Book IMS-94B-929-0, Pressure Transmitter for Nuclear Safety Applications, Copy No. 365

GEK-42241, Volume 2, Steam Turbine Generator Instruction Manual (IMS-94B-010).

VSC-94B-103-0, Operating and Installation Manual for Single Switch Point Liquid Level Detector

Documentation concerning the licensee's and A/E's transmittals, reviews, and approvals of manuals and instructions were also examined and are listed below:

Document Review Request NO. 1031, Attachment VI to PDP-101 dated 12/28/84 for Manual VCS-94B-216-0, Revision 0

CGSS-13882 Transmitting Vendor Manual for MPS Point Kit

Transmittal of Technical Manuals from Procurement Engineering to other groups for review (MRF-20393, FCN CGEM 10618, P. O. N36396, and P. O. N364524). These documents were to be reviewed and processed per TS-144.

File Index Distribution Cards for three components (IMS-94B-903, 468, and 929)

Correspondence between SCE&G and Brown Boveri dated May 2, 1984 and correspondence between NRC and Brown Boveri dated March 9, 1984

Vendor Correspondence Action Form ITS No: VEN 001400 concerning the above Brown Boveri equipment

The means and responsibility for reviewing and approving vendor manuals, documentation requirements, and changing vendor manuals is described in Procedures MEP-103, PDP-101, and TS-144. Guidelines to be used during the manual review are also provided to ensure that the manuals are applicable and are adequate.

Site QA had performed audits of the licensee's vendor manual control program. The Nuclear Document Group also performed weekly reviews to ensure that documents are controlled per procedures. Documents examined are listed below:

Weekly Review of Documents checked out of Document Control dated December 31, 1984

Log of technical documents requested and returned from December 3, 1984 to January 10, 1985

Review and Approval Form for SAP-147, Revision 3

Vendor Correspondence Action Form for W Technical Bulletin NSD-TB-84-02 (DS/DSL Breaker-Potential Wire Damage)

W Letter CGE-84-612 dated April 11, 1984 and W Technical Bulletin NSD-TB-84-02

Technical Bulletin Acknowledgement for TB-84-02 dated May 23, 1984

SCE&G Technical Work Record concerning review of plant equipment applicable to W TB-84-02

Audit Report No. NL-84-1, dated December 11, 1984, concerning Nuclear Licensing Procedures and Instructions

Transmittal of Technical Service Letter CGSS-13822 and Manual VCS-94B-103-0 to the Educational and Training Department

Test procedures, surveillance program, and maintenance procedures were reviewed to confirm that the test requirements provided in the vendor manuals are included in the site procedures; and that procedures have received adequate technical reviews as required by SAP-139. Documents reviewed are listed below:

Instruction Bulletin 33-790-1D, Section 12, Checking Contact Pressure

Surveillance Test Procedure STP-506.009, Reactor Trip Breaker Testing, Revision 4

Procedures Review Form A for STP-506.009

EMP-135.001 W Circuit Breaker Maintenance

SAP-301, Implementation of MWR, PM, SST, Sheets and Shop Work Orders, Revision 1

Equipment Information Report dated January 17, 1985 concerning performance operability check on Circuit Breaker for SW Pump "A"

STP-142.004, Manual Reactor Trip Operational Test, Revision 2

STP-345.076 Monthly Actuation Tests of Train B Reactor Trip Breaker and Test of SI Time Relay, Revision 1

Review and Approval Form for STP-345.076

Purchase Order Q334420 dated July 27, 1983 for Lubricant - W Part No. 53701GW for Reactor Protection Circuit Breaker

Requisition 167692 including Technical and Quality Requirements for Circuit Breaker Lubricant

SAP-143, Lubrication and Preventative Maintenance Program, Revision 2

EMP 405.001, Circuit Breaker Annual Maintenance, Revision 6 and

Review and approval form for change "A" to EMP 405.001

Within the areas examined, no violations or deviations were identified.

9. Post Maintenance and Modification Testing

The inspector reviewed the licensee's post maintenance testing procedures and activities to ensure the requirements of Generic Letter 83-28 were being met and that the licensee's response were being implemented. The inspector examined procedures, completed maintenance records, and interviewed responsible licensee personnel to determine the adequacy of the licensee post maintenance program. The results of the inspection are as follows:

The licensee stated in their response that applicable procedures had been reviewed and that Post Maintenance Operability is performed on safety related equipment that is identified in the Technical Specification. Further, the licensee stated that a check would be made of vendor and engineering recommendations concerning test guidance to ensure that these recommendations are incorporated in the Post Maintenance Test Procedures of safety related equipment. The licensee stated that no changes to any Post Maintenance Testing requirements are presently required.

The inspector reviewed administrative procedures, engineering procedures, surveillance procedures, modification procedures, and maintenance procedures to confirm that the licensee program provided for adequate Post Maintenance and Post Modification Testing and that their procedures were consistent with their response to Generic Letter 83-28. The following procedures were reviewed:

Technical Services Procedure No. TS-219, Design Development/Design Package, Revision 2

Technical Services Procedure No. TS-218, Initiation, Evaluation, and Approval of Design/Modification Requests, Revision 3

Technical Services Procedures No. TS-135, Station Design Change Interface and Implementation, Revision 3.

Station Administrative Procedure, SAP-601, Application, Scheduling, and Handling of Maintenance Activities, Revision 1

Electrical Maintenance Procedure, EMP-280.004, Molded Case Circuit Breaker Testing, Revision 4

Instrument Control Procedure, ICP-240.112, General Instrumentation and Control Troubleshooting Procedures, Revision 1

Station Administrative Procedure, SAP-139, Procedure Development, Review, Approval, and Control, Revision 6

Electrical Maintenance Procedures, EMP-405.001, 7.2 KV Circuit Breaker Annual Maintenance, Revision 6

In addition to the procedures listed above, portions of the following procedures were also reviewed in analyzing the licensee's Post Modification Testing Program:

Station Administrative Procedure, SAP-133, Revision 2.

Technical Services Procedure No. TS-131, Revision 1.

Station Administrative Procedure, SAP-301, Revision 1.

The inspector confirmed that the licensee program for Post Maintenance and Post Modification Testing included the following elements:

Documents which relate to maintenance activities describe or reference the necessary testing prior to returning the structure, system, or component to an operable status. These documents require a signature indicating satisfactory completion of post maintenance testing before the document can be filed as a safety related record.

Documents which relate to modifications may or may not reference the necessary testing prior to returning the structure, system, or component to an operable status. The inspector found that if special testing is required by the Design Engineering Group they will indicate the special testing needed on the Modification Request Form (MRF). If no special testing is required by Design Engineering, then Maintenance Engineering or Planning/Scheduling is supposed to assign the required post modification testing. The testing procedure to be followed is outlined on the Maintenance Work Request (MWR) Form. This document requires a signature indicating satisfactory completion of post modification testing before the document can be filed as a safety related record.

Criteria exist and responsibilities are delineated for review and approval of modifications, maintenance, and subsequent post maintenance testing; however, a definitive criteria and responsibility for review and approval of post modification testing could not be identified by the inspector. Interviews with responsible and knowledgeable personnel indicated that a system was being used for post modification testing but this system was not clearly stated in the Station Administrative or the Technical Services Procedures. This is considered an Unresolved Item and is discussed further in this report.

Criteria exist and responsibilities are delineated for inspection and data verification of the testing by QA, QC, maintenance, engineering or other responsible and knowledgeable personnel.

Administrative controls exist for the preparation, documentation, review, approval of results, transfer and retention of safety related maintenance and modification records in the records storage facility. The controls provide for the approval of the modification or maintenance package, identification of other personnel who performed the maintenance, and identification of the personnel who are required to inspect the work and subsequent testing. The identification of the personnel who would perform a modification was not noted, however, the QC required on the modification is identified.

The inspector observed portions of the following safety related maintenance and testing activities to confirm that the maintenance and testing were being performed in accordance with approved procedures, and that the personnel were knowledgeable and qualified to perform the assigned work. The follow activities were observed:

The licensee performed a mock maintenance on a Westinghouse Type DS-416 Reactor Trip Breaker (RTB) in the electrical maintenance shop. The mock maintenance demonstrated the crafts knowledge of the maintenance procedures and their familiarity with the DS-416 type breaker. The procedure verifies the operation of the shunt and undervoltage trip attachments; requires time response testing of the breaker; requires breaker trip force measurements; provides for additional testing of the breaker; and provides for lubrication of the breaker. The inspector examined the lubricant being used by the licensee to lubricate the RTB. The inspector confirmed that the lubricant met the requirements specified in the Westinghouse Instruction Manual IMS-94B-468-0.

The inspector examined the Westinghouse Maintenance Manual for the DS-416 Reactor Trip Switchgear (Rev. 0), which was prepared for the Westinghouse Owners Group. The licensee's corporate Technical Services Group reviewed this manual in late October, 1984, and transmitted a copy to the site for Maintenance Engineering (ME) to review and comment. ME Completed their review in accordance with site procedures and subsequently transmitted their comments back to Nuclear Engineering (NE), Technical Services, on November 6, 1984. NE transmitted a letter to Westinghouse (CGSW-1125) requesting that the manual be revised to incorporate a list of all shafts that use retaining rings and a list of torque values for bolts, nuts, and screws. The licensee is still in the process of reviewing the manual per Technical Services Procedure NO. TS-144, Review and Processing of Vendor Maintenance and Instruction Manuals. However, the licensee stated that the manual would be issued to the site as a controlled document in February, 1985 and any unresolved comments will be issued as a revision to the manual. The inspector informed the licensee that this matter will

be reviewed during subsequent inspections to verify that the WOG Manual has been received on site and incorporated into appropriate site procedures. This is identified as Inspector Followup Item 50-395/85-03-02, Verify that Westinghouse Maintenance Manual WOG-84-260 Has Been Approved for Site Use.

Preventative maintenance was conducted on a circuit breaker for service water pump A (SPP0039A). The inspector noted that all the procedures, checks, and tests were properly followed. An examination of documentation disclosed no deviations. One item noted was that lubrication was applied to the bus contacts with a finger. The oils on the finger could contaminate the lubricant on the contact in addition to the lubricant in the tube. The inspector observed that dirt cleaned out of the breaker cabinet was not immediately picked up, therefore, it could be blown around to other areas. The licensee acknowledged these items and stated that corrective action would be initiated.

A molded case circuit breaker was tested and calibrated as part of the preventative maintenance program. The circuit breaker is identified as the motor starter for XPP0013A-CS B36. The work was performed as outlined in the procedures. Tests were conducted as required and Q.C. verified the data points. A followup of the documentation indicated proper procedures were followed.

Corrective maintenance activities being performed for an apparent stuck valve on a component coolant water line was observed. The inspector noted that maintenance personnel were using the general approved instrumentation and control trouble shooting procedures.

A review of documentation associated with Modification Request Form 31738 was conducted. The modification originally involved a non-permanent change of the speed changing switches for component cooling water pumps and service water pumps. A post modification test was described on the MRF for special vibration tests to be conducted. After the speed switches were placed in the position locking out the two-speed functions it was noted that ESF loading sequencer was prevented from performing the auto test. As a result, a Modification Change Notice (MCN) was written to lift the leads input from the speed switches to the ESF loading sequencer. As no post modification testing was called for on Revision C of the MRF/MCN, the inspector investigated what situations would call for project engineering to spell out post modification testing. Review of documents and discussion with personnel revealed the following:

Technical Services Procedure 129, specifies that the lead engineer (Project Engineer) may spell out the functional testing. This would cover special testing such as the vibration testing mentioned above. For non-special testing, the requirements are left to the planner/scheduler when the Maintenance work Request (MWR) is written.

Technical Service Procedure TS-131 calls for a design review to address acceptance criteria incorporated in the design documents.

Station Administrative Procedure SAP 133 calls for the Station Interface Review to determine if the design package provides testing requirements to insure that the modification accomplishes or performs its design function.

Station Administrative Procedure 601 calls for a retest being required for maintenance activities affecting the operability of certain functions. The procedure also stated that retest requirements on Modification MWR's will be specified by Technical Services.

Station Administrative Procedure 301 states that reset requirements identified in the MRF will be specified on the MWR by Maintenance Engineering.

Based on the above, the responsibilities for specifying and assuring that post modification testing has been considered in the design package, and whether it has been performed following the modification has not been firmly established. Also, the procedures do not adequately clarify the division between specific or special post modification testing and general or generic testing assigned by Maintenance Engineering. Until these procedures have been reviewed and clarified as to specific responsibilities, this is considered Unresolved Item 50-395/85-03-01, Clarification of Procedures for Post Modification Testing.

Within the areas examined, no violations or deviations were identified.

10. Surveillance Testing of the Diverse Reactor Trip Functions of the Reactor Trip Switchgear (RTS)

The inspector confirmed that the licensee surveillance procedures require testing of the shunt trip attachment and the licensee verifies the ability to manually trip the RTS breakers by independent use of the undervoltage trip attachment or shunt trip device. The surveillance procedures are identified as follows:

Surveillance Test Procedure, STP-345.037, Revision 6, Solid State Protection System Actuation Logic and Master Relay Test for Train A.

Surveillance Test Procedure, STP-345.076, Revision 1, Solid State Protection System Monthly Actuation of Train B Reactor Trip Breaker and Test of SI Time Delay.

Surveillance Test Procedure, STP-345.074, Revision 2, Solid State Protection System Actuation Logic and Master Relay Test for Train B.

Surveillance Test Procedure, STP-345.075, Revision 1, Solid State Protection System Monthly Actuation of Train A Reactor Trip Breaker and Test of SI Time Delay.

Surveillance Test Procedure, STP-506.009, Revision 4, Reactor Trip Breaker Testing.

Surveillance Test Procedure, STP-142.004, Manual Reactor Trip Operational Test.

In addition to the above, the inspector reviewed the licensee's modification package (MRF 20208) which installed the automatic shunt trip actuation device on the reactor trip system. The modification was completed during the last refueling outage.

The shunt modification will automatically actuate the shunt device on reactor trip breaker A and B upon receipt of a trip signal from the Reactor Trip System. The licensee has developed surveillance procedures that test the automatic shunt trip attachment independently of the undervoltage trip device. The licensee also stated that the shunt trip devices will be replaced on all four reactor trip breakers with seismically qualified shunt devices that were recently procured from Westinghouse.

Within the area examined, no violations or deviations were identified.