

SOUTHWEST RESEARCH INSTITUTE
Post Office Drawer 28510 6220 Culebra Road
San Antonio, Texas 78284

1984 INSERVICE EXAMINATION OF SELECTED CLASS 1 AND CLASS 2 COMPONENTS AND SYSTEMS OF SALEM GENERATING STATION, UNIT 1

VOLUME I FINAL REPORT WITH APPENDICES SwRI Project 4166

Prepared for
Public Service Electric and Gas Company
80 Park Place
P.O. Box 570
Newark, New Jersey 07101

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Prepared by

W. Mark Howell

W. Mark Howell
Project Engineer
Inspection Engineering Section
Department of Engineering Services

Approved by

Wayne T. Flach

Wayne T. Flach
Director
Department of Engineering Services
Quality Assurance Systems
and Engineering Division

8501290002 850122
PDR ADDCK 05000272
Q PDR

ABSTRACT

An inservice examination (ISI) of selected Class 1 and Class 2 components of Public Service Electric and Gas Company's (PSE&G) Salem Generating Station, Unit 1, was performed during the summer 1984 refueling outage. These examinations constituted the sixth ISI performed at Salem, Unit 1, and the first ISI of the third 40-month period of commercial operation. The components were examined in accordance with the "Examination Plan for the 1984 Inservice Examination of Salem Generating Station, Unit 1," including any changes made during the ISI as approved by PSE&G.

The nondestructive examinations were performed using visual (VT), liquid penetrant (PT), magnetic particle (MT), and manual ultrasonic (UT) techniques. These examination techniques revealed indications which were reported to and dispositioned by PSE&G personnel using Customer Notification Forms. The UT examinations also revealed geometric reflectors.

TABLE OF CONTENTS

| | <u>Page</u> |
|--|-------------|
| VOLUME I--FINAL REPORT WITH APPENDICES | |
| LIST OF ILLUSTRATIONS | viii |
| LIST OF ABBREVIATIONS | ix |
| I. INTRODUCTION | 1 |
| A. Examination Areas | 1 |
| B. Summary of Examination Results | 2 |
| C. Radiation Exposure | 3 |
| D. Equipment | 4 |
| II. SUMMARY OF THE INSERVICE EXAMINATION | 7 |
| * A. Explanation of Field Data Records | 7 |
| * B. Summary of Nondestructive Examinations | 7 |
| APPENDICES | |
| A. Weld Identification Drawings and Weld Joint Cross-Reference Tables, Class 1 | |
| B. Weld Identification Drawings and Weld Joint Cross-Reference Tables, Class 2 | |
| VOLUME II--APPENDICES (Cont'd) | |
| B. Weld Identification Drawings and Weld Joint Cross-Reference Tables, Class 2 (Cont'd) | |
| C. Southwest Research Institute Nuclear Projects Operating Procedures | |
| D. Southwest Research Institute Nondestructive Testing Procedures | |
| E. Ultrasonic Calibration Block Drawings | |
| F. Certificates of Personnel Qualifications | |
| G. Material and Equipment Certifications | |
| H. Customer Notification Forms | |
| I. Southwest Research Institute's Implementation of Regulatory Guide 1.150 Requirements | |

* Not included in submittal - available on site for review along with Volume II.

TABLE OF CONTENTS (Cont'd)

VOLUME III--FIELD DATA

Class 1 Components and Systems

Reactor Pressure Vessel
Reactor Pressure Vessel Closure Head
Pressurizer
Steam Generator No. 13
Steam Generator No. 14
Chemical and Volume Control System
Pressure Relief System
Pressurizing System
Reactor Coolant System

VOLUME IV--FIELD DATA (Cont'd)

Class 1 Components and Systems (Cont'd)

Residual Heat Removal System
Safety Injection System

10-In. Piping
8-In. Piping
6-In. Piping
4-In. Piping
3-In. Piping

VOLUME V--FIELD DATA (Cont'd)

Class 1 Components and Systems (Cont'd)

Safety Injection System (Cont'd)

2-In. Piping
1-1/2-In. Piping

Reactor Coolant Pumps
Valves

Class 2 Components and Systems

Feedwater System
Chemical and Volume Control System
Safety Injection System

LIST OF ILLUSTRATIONS

| <u>Figure</u> | | <u>Page</u> |
|---------------|---|-------------|
| 1 | Sonic FTS MK I and Pictorial Representation of Crown Indication | 5 |
| 2 | Sonic FTS MK I and Pictorial Representation of Root Indication | 5 |
| 3 | Explanation of Summary Table Format | 9 |

TABLE OF CONTENTS (Cont'd)

VOLUME VI--FIELD DATA (Cont'd)

Calibration Records

190000 Series
250000 Series
360000 Series
370000 Series

I. INTRODUCTION

During the May through July 1984 refueling outage, Southwest Research Institute (SwRI) personnel performed nondestructive examinations (NDE) of selected components for Public Service Electric and Gas Company (PSE&G) at Salem Generating Station, Unit 1. The examinations constituted the sixth such inservice examination (ISI) performed at Salem Unit 1 and the first ISI of the third 40-month period of commercial operation.

A. Examination Areas

The ISI was performed in accordance with the following documents:

- Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, "Rules for Inservice Inspection of Nuclear Power Plant Components," 1974 Edition with Addenda through Summer 1975.
- SwRI Document 84-PEG-SGS-1/2-1-0: "Project Plan for the Nondestructive Examination Activities to be Performed at Salem Generating Station, Units 1 and 2," dated May 1984.
- SwRI "Examination Plan for the 1984 Inservice Examination of Salem Generating Station, Unit 1," dated April 1984.
- SwRI Nuclear Quality Assurance Program Manual (NQAPM), with all applicable changes.
- U. S. NRC Regulatory Guide 1.14, "Reactor Coolant Pump Flywheel Integrity," Revision 1, August 1975.
- U. S. NRC Regulatory Guide 1.65, "Materials and Inspections for Reactor Vessel Closure Studs," October 1973.
- U. S. NRC Regulatory Guide 1.150, "Ultrasonic Testing of Reactor Vessel Welds During Preservice and Inservice Examination," Revision 1, February 1983.

Representative samples of the following components and areas were examined with NDE techniques.

Class 1

Reactor Pressure Vessel
Reactor Pressure Vessel Closure Head
Pressurizer
Steam Generator No. 13
Steam Generator No. 14
Chemical and Volume Control System
Pressure Relief System
Pressurizing System

Reactor Coolant System
Residual Heat Removal System
Safety Injection System
Reactor Coolant Pumps
Valves

Class 2

Feedwater System
Chemical and Volume Control System
Safety Injection System

B. Summary of Examination Results

The NDE activities were performed using visual (VT), liquid penetrant (PT), magnetic particle (MT), and manual ultrasonic (UT) techniques. Each examination was conducted in accordance with standard SwRI nondestructive testing (NDT) procedures which were written to comply with the requirements of the pertinent sections of the ASME Boiler and Pressure Vessel Code and the SwRI NQAPM. A copy of each applicable SwRI NDT procedure is included in Appendix D.

SwRI operating procedures for weld joint identification marking on nuclear power plant piping, recording data during VT, PT, and MT examinations, and recording search unit location and maximum signal amplitude during UT examinations are included in Appendix C.

During the VT examinations, severe pitting and corrosion was observed on reactor pressure vessel studs numbered 23 through 27 and reported to PSE&G on Customer Notification Form (CNF) 84-1-015. The studs were subsequently rejected by PSE&G and replaced with studs numbered S6 through S10. Studs 37, 44, and 53 were also rejected by PSE&G after failing a tolerance check and were replaced with studs S2, S3, and S4. Baseline MT and UT examinations were performed on the replacement studs.

During the PT piping examinations, indications were observed on nine welds: 2-SJ-1118-17, 1-1/2-SJ-1132-23, 1-1/2-SJ-1122-3, 1-1/2-SJ-1112-15, 2-SJ-1128-41, 2-SJ-1118-29, 2-SJ-1129-25, 2-RC-1114-8, and 2-SJ-1128-74. These indications were reported to PSE&G on CNFs 84-1-001 through 84-1-009, respectively. The indications in each examination area were dispositioned by PSE&G, and reexamination by SwRI personnel revealed no recordable indications.

A 10-year examination of reactor coolant pump (RCP) flywheels, as specified in U.S. NRC Regulatory Guide 1.14, Article C, was performed on RCP flywheels 11, 13, and 14. The elements comprising this 10-year examination included a PT examination on the inner bore and the keyways of the flywheel and MT and UT examinations on the top surface, bottom surface, and outer perimeter of the flywheel. During the PT examinations, indications were recorded on the inner bores of No. 11 and No. 14 flywheels and reported to PSE&G on CNFs 84-1-012 and 84-1-011. After the spot grinding of a one-square-inch section of each of the flywheels, the indications were

resolved as superficial chatter marks and accepted after evaluation by PSE&G. MT indications were observed on the bottom surface of RCP flywheel No. 13 and the top surface of RCP flywheel Nos. 11, 13, and 14. These were reported to PSE&G on CNFs 84-1-010, -013, and -014 (includes top surface of No. 13 and No. 14), respectively. The indications were dispositioned by PSE&G, and reexamination by SwRI personnel revealed no recordable indications. No reportable indications were observed during the UT examination of the flywheels.

During the UT examinations, one reportable indication was observed on 14-BF-2131-23. The indication was resolved by SwRI personnel as a Code-acceptable inclusion and was accepted after evaluation by PSE&G. The remaining UT examinations revealed numerous insignificant and geometric indications; however, no additional reportable UT indications were observed.

No other reportable indications were observed during the examinations.

In addition to the examinations performed by SwRI personnel, VT examinations of selected Class 1, Class 2, and Class 3 hangers were performed and reported separately by PSE&G.

The SwRI Quality Assurance (QA) Section was represented on site by the SwRI QA Representative who was present for approximately 50 percent of the examination period. The QA Representative performed the appropriate duties outlined in Paragraph 3.3.1(4), "Onsite SwRI Quality Assurance Activities," of the Project Plan.

The SwRI examiners were qualified and certified in accordance with SwRI Nuclear Quality Assurance Procedures 11-1 and 11-2 which incorporate the guidelines of SNT-TC-1A of the American Society for Nondestructive Testing. A copy of each individual's certifications is included in Appendix F. Included in Appendix G are copies of the certifications for the ultrasonic instruments, transducers, couplant, and marking pencils used during the examinations.

Drawings of the basic calibration blocks used during the ultrasonic system calibrations are located in Appendix E.

C. Radiation Exposure

Radiation exposure encountered during the ISI was of fundamental concern to the SwRI personnel involved in the daily examination activities. SwRI personnel took the necessary precautions to minimize overall exposure and consequently received the minimum dosage practicable while performing the selected examinations. The following listing details the approximate radiation exposure levels associated with various examination areas.

| <u>Area</u> | <u>Exposure Level</u> |
|--------------------------------------|-----------------------|
| CONTAINMENT | |
| Annulus Area | 0-50 mR/hr |
| Inside Bioshield | 20-2000 mR/hr |
| Pressurizer Enclosure | 50-1500 mR/hr |
| RPV Closure Head | |
| Inside | 3000-5000 mR/hr |
| Outside | 10-50 mR/hr |
| Refueling Deck | 0-20 mR/hr |
| Regenerative Heat Exchanger Room | 100-1000 mR/hr |
| Steam Generator | 10-100 mR/hr |
| AUXILIARY BUILDING | |
| Boron Injection Tank Room | 10-50 mR/hr |
| Mechanical Penetration Area | 0-10 mR/hr |
| Charging Safety Injection Pump Rooms | 0-20 mR/hr |

D. Equipment

1. Sonic FTS MK I (see Figures 1 and 2)

Sonic FTS Mark I UT instruments were used to perform the manual ultrasonic examination of selected components. They also served to determine the characteristics and properties of the components by measuring the transmission and attenuation of ultrasound. The Sonic FTS Mark I instrument is a lightweight portable unit powered by a rechargeable battery and utilizes transistorized circuits and a cathode-ray tube to give a video display representation of the test data.

Instrument calibration certifications for the Sonic FTS MK I are located in Appendix G.

2. Transducers

Various brands, sizes, types, and frequencies of ultrasonic transducers (search units) were used to perform the examinations. Transducer frequencies of 1.5, 2.25, and 5.0 MHz were used. The 2.25- and 5.0-MHz transducers were used on carbon steels, and the 1.5- and 2.25-MHz transducers were used on stainless steels, as specified in the procedure. For information on the actual transducer used for any specific examination, consult the data sheets and referenced calibration sheets in the field data volumes.

Figure 1. Sonic FTS Mark I
and pictorial representation
of crown indication

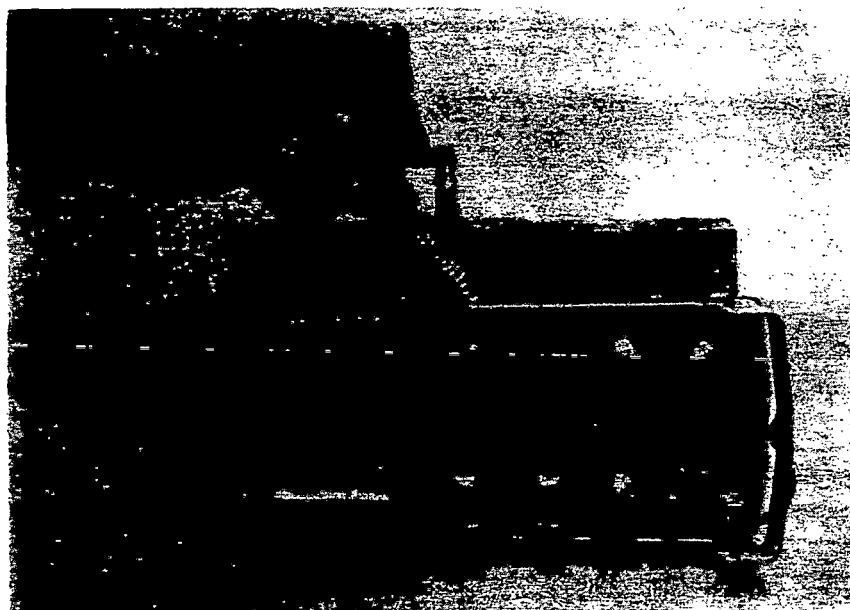
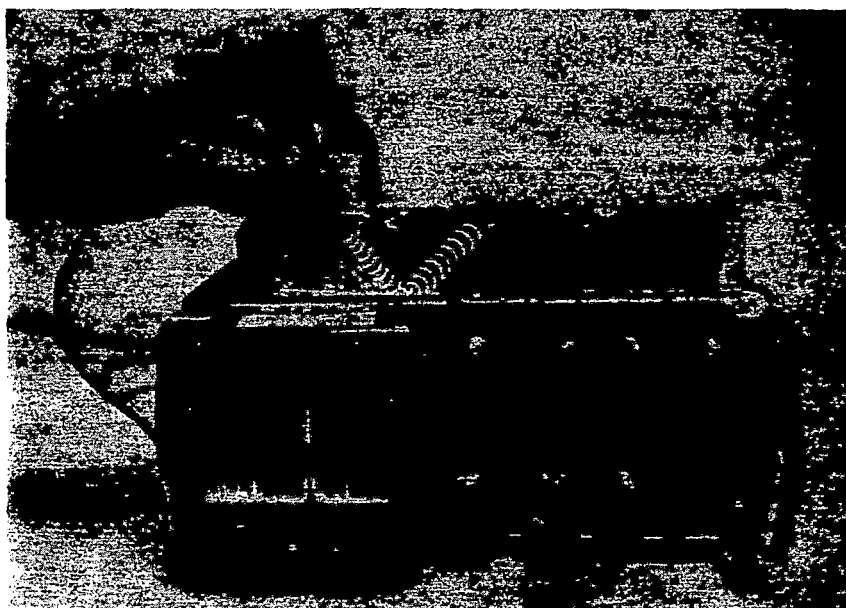


Figure 2. Sonic FTS Mark I
and pictorial representation
of root indication

II. SUMMARY OF THE INSERVICE EXAMINATION

This section of the report provides a discussion of the field data records and a summary of the NDE activities performed.

A. Explanation of Field Data Records

The results of the NDE activities and calibrations performed by SwRI personnel were recorded on standard SwRI forms. These completed documents constitute a portion of the Inservice Examination Report. The original records are retained in the SwRI Data Storage Facility, and copies are provided herein for completeness.

The field data records for each weld or area are assembled into a package preceded by a summary sheet. The examination areas and summary sheet numbers correspond to those listed in the Summary Table. A general explanation of the individual field data forms follows.

- The instruments used in performing UT examinations were calibrated prior to use, then verified again at specified intervals during the examinations and upon completion of the examinations. The calibration parameters were recorded on the appropriate calibration record sheet as specified in the applicable NDT procedure. The documented calibration and calibration verification provide immediate assurance that the examinations were performed using properly calibrated instruments.
- The results of UT examinations were recorded on the applicable data record sheets as specified in the appropriate NDT procedure. The information documented on these forms describes the parameters associated with those indications which were greater than the recording levels specified in the applicable NDT procedures.
- When required, the size, location, and nature of reflectors were determined by analyzing the indication parameters recorded on the forms described above. The analysis is documented on SwRI Indication Resolution Record Sheets, which are included as a part of each data package.
- VT, PT, and MT Examination Record Sheets were used to record the results of those examinations. Both remote and direct VT examination techniques utilize the same basic format for documenting indications. The equipment and/or materials used in VT, PT, and MT examinations are also identified on the record sheets.

B. Summary of Nondestructive Examinations

The following section of this report is the Summary of Nondestructive Examinations Table (Summary Table). The Summary Table provides information

and results for the NDE activities performed during this ISI. See Figure 3 for an explanation of the Summary Table format. Weld identification figures for Class 1 and Class 2 systems are located in Appendices A and B, respectively.

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O D N G T R S E H E I O E C G M R | REMARKS |
|---|--------------------------|---|-----------------|-------------------------------|----------------------------|---|---|
| | | | | | | | <p>The remarks column is used to describe any pertinent features of the examination such as limitations, reportable results, CNFs, etc. Ultrasonic calibration blocks are also listed here.</p> |
| | | | | | | | <p>The results of the examination are indicated in these columns. The absence of indications equal to or greater than the appropriate recording level is shown by an "X" in the "NOREC" column. The presence of nonrelevant indications or indications which are equal to or greater than the recording level but less than the evaluation level is indicated by an "X" in the "INSIG" column. The presence of ultrasonic indications shown to be the result of a geometric feature of the examination area is indicated by an "X" in the "GEOM" column. The presence of indications deemed reportable to the customer are indicated by an "X" in the "OTHER" column.</p> |
| | | | | | | | <p>This column references the examination summary sheet which serves as a cover sheet for the data package and lists the data record numbers, the examiners, and any pertinent remarks.</p> |
| | | | | | | | <p>This column lists the applicable SwRI NDT procedure used for the examination.</p> |
| | | | | | | | <p>The NDE method used during the examination is listed in this column.</p> |
| | | | | | | | <p>Each examination area is listed in this column. Details of the weld identification system are contained in Appendices A and B.</p> |
| <p>The ASME SECTION XI ITEM NO. and CATEGORY of the examination area are listed in these columns.</p> | | | | | | | |

Figure 3. Explanation of Summary Table Format

CLASS 1 COMPONENTS

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 11

REACTOR PRESSURE VESSEL (SEE FIGURE A-1)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRT PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|---------------------------------------|--------------------------|---|-----------------|--------------------------------|----------------------------|---|---|
| LIGAMENTS BETWEEN THREADED STUD HOLES | | | | | | | |
| B1.9 | B-G-1 | 1-RPV-LIG 37 THRU 1 | VT UTO | 900-1/50 600-5/35 DEV. 5 | 003700 | X - - - - X - - | UT EXAMINATION WAS PERFORMED ON LIGAMENT AREA BETWEEN THE CENTERLINES OF STUD HOLE NO. 37 AND STUD HOLE NO. 1. AT THE REQUEST OF PS&G VI AND UT EXAMINATIONS WERE PERFORMED BETWEEN THE CENTERLINES OF STUD HOLE NO. 22 AND STUD HOLE NO. 28. ***BASIC CALIBRATION BLOCK*** 7-1.125-8-CS-60-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 12

REACTOR PRESSURE VESSEL CLOSURE HEAD (SEE FIGURE A-2)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|----------------------------------|--------------------------|---|--|-------------------------------|----------------------------|--|--|
| ----- | | | | | | | |
| MERIDIONAL WELDS IN CLOSURE HEAD | | | | | | | |
| ----- | | | | | | | |
| B1.2 | B-B | 1-RPV-1046C MERIDIONAL WELD AT 60 DEG. | UTOL UTOW UT45 UT45T UT60 UT60T | 600-15/54 DEV. 3 | 004700 | X - - - X - - - X - - - X - - - X - - - X - - - | 10% (6 INCHES) OF WELD LENGTH WAS EXAMINED. ***BASIC CALIBRATION BLOCK*** 7-CSCL-50-SAM |
| B1.2 | B-B | 1-RPV-1046F MERIDIONAL WELD AT 240 DEG | UTOL UTOW UT45 UT45T UT60 UT60T | 600-15/54 DEV. 3 | 005000 | X - - - X - - - X - - - X - - - X - - - X - - - | 10% (6 INCHES) OF WELD LENGTH WAS EXAMINED. ***BASIC CALIBRATION BLOCK*** 7-CSCL-50-SAM |
| CIRCUMFERENTIAL WELDS | | | | | | | |
| ----- | | | | | | | |
| B1.3 | B-C | 1-RPV-6046A HEAD TO FLANGE | UTOL UTOW UT45 UT45T UT60 UT60T | 600-15/54 DEV. 3 | 005100 | X - - - X - - - X - - - X - - - X - - - X - - - | 33-1/32 (185.5 INCHES) OF WELD LENGTH WAS EXAMINED FROM THE CENTERLINE OF STUD HOLE NO. 37 TO THE CENTERLINE OF STUD HOLE NO. 1. LIMITED EXAMINATION FROM THE HEAD SIDE DUE TO THE PROXIMITY OF A LIFTING LUG. NO EXAMINATION FROM THE FLANGE SIDE DUE TO THE FLANGE CONFIG- URATION. ***BASIC CALIBRATION BLOCK*** 7-CSCL-50-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 13

REACTOR PRESSURE VESSEL CLOSURE HEAD (SEE FIGURE A-2)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|----------------------------------|--------------------------|---|-----------------------|--|----------------------------|---|--|
| CLOSURE STUDS, NUTS, AND WASHERS | | | | | | | |
| B1.8 | B-G-1 | 1-RPV-STUDS CLOSURE STUDS | VT MT UT60 | 900-1/50 300-2/35 DEVS. 4,5 600-18/35 DEV. 6 | 005200 | - - - X X - - - X - - - | SEE CNF 84-1-015. VT INDICATIONS ON STUDS 23-27. STUDS 23-27, 37, 44 AND 53 WERE REJECTED BY PSEBG DUE TO SEVERE PITTING AND FAILURE TO PASS A TOLERANCE CHECK AND WERE REPLACED WITH STUDS S2-S4 AND S6-S10. VT EXAMINATIONS WERE PERFORMED ON STUDS 23-27, 38-54, S2-S4, AND S6. BASELINE UT AND MT EXAMINATIONS WERE PERFORMED ON REPLACEMENT STUDS S2-S4 AND S6-S10. ***BASIC CALIBRATION BLOCK*** 7-1.125-8-CS-60-SAM |
| B1.8 | B-G-1 | 1-RPV-NUTS CLOSURE NUTS | MT UT0 UT42 | 300-2/35 DEVS. 4,5 600-19/31 DEV. 4 | 005310 | X - - - X - - - X - - - | NUTS 38-54 WERE EXAMINED. ***BASIC CALIBRATION BLOCK*** 9.563-7-8-CS-59-SAM |
| B1.10 | B-G-1 | 1-RPV-WASHERS CLOSURE WASHERS | VT | 900-1/50 | 005400 | X - - - | WASHERS 38-54 WERE EXAMINED. |
| CLADDING | | | | | | | |
| B1.13 | B-I-1 | 1-RPVCH-PATCH 5 6 INCH BY 6 INCH PATCH | VT PT | 900-1/50 200-1/56 DEV. 2 | 005900 | X - - - X - - - | CENTER OF 6 INCH SQUARE PATCH IS 23 INCHES ABOVE THE BOTTOM EDGE OF THE FLANGE AT THE 225-DEGREE AZIMUTH OF THE HEAD. |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 14

REACTOR PRESSURE VESSEL CLOSURE HEAD (SEE FIGURE A-2)

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|----------------------------|--------------------------|---|-----------------|--------------------------------|----------------------------|---|---|
| | | CLADDING | | | | | |
| | | (CONTD) | | | | | |
| B1.13 | H-1-1 | 1-RPVCH-PATCH 6 6 INCH BY 6 INCH PATCH | VT PT | 900-1/50 200-1/56 DEV. 2 | 006000 | X - - - X - - - | CENTER OF 6 INCH SQUARE PATCH IS 23 INCHES ABOVE THE BOTTOM EDGE OF THE FLANGE AT THE 270-DEGREE AZIMUTH OF THE HEAD. |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 15

PRESSURIZER (SEE FIGURE A-3)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I U E C G M R | REMARKS |
|----------------------------|--------------------------|---|--|-------------------------------|----------------------------|--|--|
| LONGITUDINAL WELDS | | | | | | | |
| B2.1 | B-B | 1-PZR-2 LONGITUDINAL WELD SHELL A | UTOL UTOW UT45 UT45T UT60 UT60T | 600-15/57 DEV. 8 | 006100 | X - - - X - - - X - - - X - - - X - - - X - - - | 10% (5.5 INCHES) OF WELD LENGTH WAS EXAMINED. ***BASIC CALIBRATION BLOCK*** 5-CSCL-42-SAM |
| B2.1 | B-B | 1-PZR-4 LONGITUDINAL WELD SHELL B | UTOL UTOW UT45 UT45T UT60 UT60T | 600-15/57 DEV. 8 | 006125 | X - - - X - - - X - - - X - - - X - - - X - - - | 10% (5.5 INCHES) OF WELD LENGTH WAS EXAMINED. ***BASIC CALIBRATION BLOCK*** 5-CSCL-42-SAM |
| B2.1 | B-B | 1-PZR-8 LONGITUDINAL WELD SHELL D | UTOL UTOW UT45 UT45T UT60 UT60T | 600-15/57 DEV. 8 | 006175 | X - - - X - - - X - - - X - - - X - - - X - - - | 10% (5.5 INCHES) OF WELD LENGTH WAS EXAMINED. ***BASIC CALIBRATION BLOCK*** 5-CSCL-42-SAM |
| CIRCUMFERENTIAL WELDS | | | | | | | |
| B2.1 | B-B | 1-PZR-1 LOWER HEAD TO SHELL A | UTOL UTOW UT45 UT45T UT60 UT60T | 600-15/57 DEV. 8 | 006600 | X - - - X - - - X - - - X - - - X - - - X - - - | 5% (15 INCHES) OF WELD LENGTH WAS EXAMINED. ***BASIC CALIBRATION BLOCK*** 5-CSCL-42-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 16

PRESSURIZER (SEE FIGURE A-3)

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O U N G T R S E H F J O F C G M R | REMARKS |
|--------------------------------|--------------------------|---|--|-------------------------------|----------------------------|--|--|
| CIRCUMFERENTIAL WELDS | | | | | | | |
| (CONTD) | | | | | | | |
| 02.1 | B-B | 1-PZR-3 SHELL A TO SHELL B | UTOL UTOW UT45 UT45I UT60 UT60T | 600-15/57 DEV. 8 | 006625 | X - - - X - - - X - - - X - - - X - - - X - - - | 5% (15 INCHES) OF WELD LENGTH WAS EXAMINED. ***BASIC CALIBRATION BLOCK*** 5-CSCL-42-SAM |
| 02.1 | B-B | 1-PZR-7 SHELL C TO SHELL D | UTOL UTOW UT45 UT45T UT60 UT60T | 600-15/57 DEV. 8 | 006675 | X - - - X - - - X - - - X - - - X - - - X - - - | 5% (15 INCHES) OF WELD LENGTH WAS EXAMINED. ***BASIC CALIBRATION BLOCK*** 5-CSCL-42-SAM |
| NOZZLE INSIDE RADIUSFD SECTION | | | | | | | |
| 02.2 | B-D | 4-PRN-1100-IRS RELIEF NOZZLE | UT53 | 800-55/12 | 007000 | X - - - | ***BASIC CALIBRATION BLOCK*** 1R-CSCL-84-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 17

PRESSURIZER (SEE FIGURE A-3)

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|--------------------------------|--------------------------|---|-----------------|-------------------------------|----------------------------|---|---|
| NOZZLE INSIDE RADIUSED SECTION | | | | | | | |
| (CONTD) | | | | | | | |
| H2.2 | B-D | 6-PRN-1103-IRS RELIEF NOZZLE | UT53 | 800-55/12 | 007100 | X - - - | ***BASIC CALIBRATION BLOCK*** IR-CSCL-84-SAM |
| H2.2 | B-D | 6-PRN-1104-IRS RELIEF NOZZLE | UT53 | 800-55/12 | 007200 | X - - - | ***BASIC CALIBRATION BLOCK*** IR-CSCL-84-SAM |
| H2.2 | B-D | 6-PRN-1105-IRS RELIEF NOZZLE | UT53 | 800-55/12 | 007300 | X - - - | ***BASIC CALIBRATION BLOCK*** IR-CSCL-84-SAM |
| H2.2 | B-D | 4-PSN-1131-IRS SPRAY NOZZLE | UT60 | 800-55/12 DEV. 2 | 007400 | X - - - | ***BASIC CALIBRATION BLOCK*** IR-CSCL-84-SAM |
| BOLTING | | | | | | | |
| H2.11 | B-G-2 | PZR BOLTING - MANWAY | VT | 900-1/50 | 007820 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 18

STEAM GENERATOR 13 (SEE FIGURE A-6)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|------------------------------|--------------------------|---|--|-------------------------------|----------------------------|--|--|
| CIRCUMFERENTIAL WELDS | | | | | | | |
| B3.1 | B-B | 13-STG-11 LOWER HEAD TO TUBE SHEET | UTOL UTOW UT45 UT45T UT60 UT60T | 600-15/57 DEV. H | 009700 | X - - - X - - - X - - - X - - - X - - - X - - - | 5% (22 INCHES) OF WELD LENGTH WAS EXAMINED. ***BASIC CALIBRATION BLOCK*** S-CSCL-42-SAM |
| NOZZLE INSIDE RADIUS SECTION | | | | | | | |
| B3.2 | B-D | 31-RCN-1130-IRS | UT30 | 800-55/12 | 009800 | X - - - | ***BASIC CALIBRATION BLOCK*** IR-CSCL-84-SAM |
| B3.2 | B-D | 29-RCN-1130-IRS | UT34 | 800-55/12 | 009900 | X - - - | ***BASIC CALIBRATION BLOCK*** IR-CSCL-84-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 19

STEAM GENERATOR 14 (SEE FIGURE A-7)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBLR | N I O O N G T R S E H E I O E C G M R | REMARKS |
|----------------------------|--------------------------|---|--|-------------------------------|----------------------------|--|--|
| CIRCUMFERENTIAL WELDS | | | | | | | |
| U3.1 | H-B | 14-SIG-11 LOWER HEAD TO TUBE SHEET | UTOL UTOW UT45 UT45T UT60 UT60T | 600-15/57 010600 DEV. 8 | | X - - - X - - - X - - - X - - - X - - - X - - - | 5% (22 INCHES) OF WELD LENGTH WAS EXAMINED. ***BASIC CALIBRATION BLOCK*** S-CSCL-42-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 20

CHEMICAL AND VOLUME CONTROL SYSTEM

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|-----------------------------------|--------------------------|---|---------------------------------------|-------------------------------|----------------------------|---|--|
| <u>3-CV-1143 (SEE FIGURE A-8)</u> | | | | | | | |
| B4.5 | B-J | 3-CV-1143-8 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 012900 | X - - - - X - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |
| B4.5 | B-J | 3-CV-1143-21 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 014200 | X - - - - X X - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |
| <u>3-CV-1141 (SEE FIGURE A-9)</u> | | | | | | | |
| B4.5 | B-J | 3-CV-1141-8 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 016100 | X - - - X - - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |
| B4.5 | B-J | 3-CV-1141-15 ELBOW TO BRANCH CONNECTION | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 016800 | X - - - X - - - - - X - X - - - - X - - | NO EXAMINATION FROM THE DOWN- STREAM SIDE DUE TO BRANCH CONNECTION CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 21

CHEMICAL AND VOLUME CONTROL SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|------------------------------------|--------------------------|---|-------------------------------|-------------------------------|----------------------------|---|---|
| 3-CV-1133 (SEE FIGURE A-10) | | | | | | | |
| B4.5 | B-J | 3-CV-1133-9 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 017700 | X - - - X - - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |
| 2-CV-1175 (SEE FIGURES A-11, A-12) | | | | | | | |
| B4.8 | B-J | 2-CV-1175-12 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 019700 | X - - - | |
| B4.8 | B-J | 2-CV-1175-13 ELBOW TO PIPE | PT | 200-1/56 DEV. 2 | 019800 | X - - - | |
| B4.8 | B-J | 2-CV-1175-27 COUPLING TO PIPE | PT | 200-1/56 DEV. 2 | 021200 | X - - - | |
| B4.8 | B-J | 2-CV-1175-29 ELBOW TO PIPE | PT | 200-1/56 DEV. 2 | 021400 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 22

PRESSURE RELIEF SYSTEM

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|-----------------------------|--------------------------|---|-------------------------------|---|----------------------------|---|--|
| ----- | | | | | | | ----- |
| 6-PR-1105 (SEE FIGURE A-13) | | | | | | | ----- |
| B4.5 | B-J | 6-PR-1105-6 ELBOW TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 022700 | X - - - X - - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 6-SS-160-.764-25-SAM |
| 6-PR-1104 (SEE FIGURE A-14) | | | | | | | ----- |
| B4.1 | B-F | 6-PR-1104-1 NOZZLE TO SAFE-END | PT UTOW UT45T | 200-1/56 DEV. 2 600-3/61 DEV. 12 | 023400 | X - - - X - - - X - - - | NO UT FROM THE UPSTREAM OR DOWNSTREAM SIDES DUE TO THE NOZZLE AND SAFE-END CONFIGU- RATIONS. ***BASIC CALIBRATION BLOCK*** 6-SS-XX-1.5-64-SAM |
| B4.5 | B-J | 6-PR-1104-7 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 024000 | X - - - - - X - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 6-SS-160-.764-25-SAM |
| 6-PR-1103 (SEE FIGURE A-15) | | | | | | | ----- |
| B4.1 | B-F | 6-PR-1103-1 NOZZLE TO SAFE-END | PT UTOW UT45T | 200-1/56 DEV. 2 600-3/61 DEV. 12 | 024600 | X - - - X - - - X - - - | NO UT FROM THE UPSTREAM OR DOWNSTREAM SIDES DUE TO THE NOZZLE AND SAFE-END CONFIGU- RATIONS. ***BASIC CALIBRATION BLOCK*** 6-SS-XX-1.5-64-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 23

PRESSURE RELIEF SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G I R S E H E I O E C G M R | REMARKS |
|-----------------------------|--------------------------|---|-------------------------------|-------------------------------|----------------------------|---|---|
| 6-PR-1103 (SEE FIGURE A-15) | | | | | | | |
| (CONTD) | | | | | | | |
| B4.5 | B-J | 6-PR-1103-8 PIPE TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 025300 | X - - - - - X - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 6-SS-160-.764-25-SAM |
| B4.12 | B-G-2 | 6-PR-1103-12FB FLANGE BOLTING | VT | 900-1/50 | 025800 | X - - - | |
| 4-PR-1100 (SEE FIGURE A-16) | | | | | | | |
| B4.5 | B-J | 4-PR-1100-4 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 026200 | X - - - X - - - X - - - X - - - | ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| 3-PR-1107 (SEE FIGURE A-16) | | | | | | | |
| B4.5 | B-J | 3-PR-1107-2 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 027000 | X - - - - X - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 24

PRESSURE RELIEF SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I D E C G M R | REMARKS |
|----------------------------|--------------------------|---|---------------------------------------|-------------------------------|----------------------------|---|---|
| ----- | | | | | | | |
| | | 3-PR-1107 (SEE FIGURE A-16) | | | | | |
| ----- | | | | | | | |
| | | (CONTD) | | | | | |
| ----- | | | | | | | |
| B4.5 | B-J | 3-PR-1107-10 PIPE TO VALVE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 027800 | X - - - X - - - - - X - X - - - X - - - | NO EXAMINATION FROM THE DOWN- STREAM SIDE DUE TO VALVE CONFIGURATION. |
| | | | | | | | ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |
| | | 3-PR-1106 (SEE FIGURE A-17) | | | | | |
| ----- | | | | | | | |
| B4.5 | B-J | 3-PR-1106-7 ELBOW TO ELBOW | UTOL UT45 UT45I UT60 | 600-3/61 DEV. 12 | 028900 | X - - - X - - - X - - - - - X - | ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 25

PRESSURIZING SYSTEM

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E T O E C G H R | REMARKS |
|--|--------------------------|---|---------------------------------------|---|----------------------------|---|---|
| 4-PS-1131 (SEE FIGURES A-19, A-20, A-21) | | | | | | | |
| B4.5 | B-J | 4-PS-1131-1 BRANCH CONNECTION TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 030100 | X - - - X - - - X - - - X - - - | ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| B4.5 | B-J | 4-PS-1131-12 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 031700 | X - - - X - - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| B4.5 | B-J | 4-PS-1131-13 ELBOW TO VALVE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 031900 | X - - - X - - - X - - - X - - - X - - - | NO EXAMINATION FROM THE DOWN- STREAM SIDE DUE TO VALVE CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| B4.5 | B-J | 4-PS-1131-24 TEE TO PIPE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 033000 | X - - - X - - - X - - - X - - - X - - - | NO EXAMINATION FROM THE UP- STREAM SIDE DUE TO TEE CONFIG- URATION. ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| B4.1 | B-F | 4-PS-1131-29 SAFE-END TO NOZZLE | PT UTOW | 200-1/56 DEV. 2 600-3/61 DEV. 12 | 033500 | X - - - X - - - | NO EXAMINATION FROM THE UP- STREAM OR DOWNSTREAM SIDES DUE TO THE NOZZLE AND SAFE-END CONFIGURATIONS. NO UT45T SCAN DUE TO WELD CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 26

PRESSURIZING SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|----------------------------|--------------------------|---|---------------------------------------|---|----------------------------|---|--|
| | | 4-PS-1131 (SEE FIGURES A-19, A-20, A-21) | | | | | |
| | | (CONTD) | | | | | |
| 04.9 | B-K-1 | 4-PS-1111-14PL PIPE LUG | UTOL UTOW UT45 UT45T | 600-3/61 DEV. 12 | 035600 | X - - - X - - - - X - - X - - - | NO UT45T SCAN ON WELD DUE TO WELD CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| | | 4-PS-1111 (SEE FIGURE A-22) | | | | | |
| 04.5 | B-J | 4-PS-1111-18 PIPE TO PIPE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 036000 | X - - - X - - - X - - - X - - - X - - - | LIMITED EXAMINATION FROM THE UPSTREAM SIDE DUE TO THE INNER RADIUS OF THE BENT PIPE. ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| 04.5 | B-J | 4-PS-1111-23 VALVE TO TEE | PT UTOW UT45T | 200-1/56 DEV. 2 600-3/61 DEV. 12 | 036500 | X - - - X - - - X - - - | NO UT FROM THE UPSTREAM OR DOWNSTREAM SIDE DUE TO VALVE AND TEE CONFIGURATIONS. PT WAS PERFORMED AS A SUPPLE- MENTAL EXAMINATION. ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 27

REACTOR COOLANT SYSTEM

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SNRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G I R S E H E I O E C G M R | REMARKS |
|------------------------------|--------------------------|---|---------------------------------------|---|----------------------------|---|--|
| 31-RC-1130 (SEE FIGURE A-24) | | | | | | | |
| B4.1 | B-F | 31-RC-1130-2 NOZZLE TO ELBOW | PT UTOW UT45T | 200-1/56 DEV. 2 600-3/61 DEV. 12 | 039200 | X - - - X - - - X - - - | NO UT FROM THE UPSTREAM OR DOWNSTREAM SIDE DUE TO ELBOW ACOUSTICAL PROPERTIES AND PUMP CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 2.312-SS-37-SAM |
| 31-RC-1120 (SEE FIGURE A-25) | | | | | | | |
| B4.5 | B-J | 31-RC-1120-5 ELBOW TO PIPE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 043650 | X - - - X - - - X - - - X - - - X - - - | LIMITED EXAMINATION FROM THE DOWNSTREAM SIDE DUE TO AN ADJACENT BRANCH CONNECTION. NO EXAMINATION FROM THE UP- STREAM SIDE DUE TO THE ACOUS- TICAL PROPERTIES OF THE ELBOW. ***BASIC CALIBRATION BLOCK*** 2.312-SS-37-SAM |
| 29-RC-1140 (SEE FIGURE A-27) | | | | | | | |
| B4.5 | B-J | 29-RC-1140-3 PIPE TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 047600 | X - - - - X - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 2.312-SS-37-SAM |
| B4.7 | B-J | 29-RC-1140-3/6-SJ-1141 6 IN. BRANCH CONNECTION | PT | 200-1/56 DEV. 2 | 047800 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 28

REACTOR COOLANT SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E J O E C G M R | REMARKS |
|---|--------------------------|---|---------------------------------------|---|----------------------------|---|--|
| ----- | | | | | | | |
| 29-RC-1130 (SEE FIGURE A-28) ----- | | | | | | | |
| B4.1 | B-F | 29-RC-1130-5 ELBOW TO NOZZLE | PT UTOW UT45T | 200-1/56 DEV. 2 600-3/61 DEV. 12 | 050210 | X - - - X - - - X - - - | NO UT FROM THE UPSTREAM OR DOWNSTREAM SIDE DUE TO ELBOW ACOUSTICAL PROPERTIES AND NOZZLE CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 2.312-SS-37-SAM |
| 27-1/2-RC-1130 (SEE FIGURE A-32) ----- | | | | | | | |
| B4.5 | B-J | 27.5-RC-1130-2 PIPE TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 050600 | X - - - - X - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 2.312-SS-37-SAM |
| 27-1/2-RC-1110 (SEE FIGURE A-34) ----- | | | | | | | |
| B4.7 | B-J | 27.5-RC-1110-1/4-PS-1111 4 IN. BRANCH CONNECTION | PT | 200-1/56 DEV. 2 | 059100 | X - - - | |
| 3-RC-1143 (SEE FIGURE A-35) ----- | | | | | | | |
| B4.5 | B-J | 3-RC-1143-17 ELBOW TO VALVE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 061800 | X - - - X - - - - X X - X - - - - X - - | NO EXAMINATION FROM THE DOWN- STREAM SIDE DUE TO VALVE CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 29

REACTOR COOLANT SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N O N G T R S E H E I O E C G M R | REMARKS |
|-----------------------------|--------------------------|---|---------------------------------------|---|----------------------------|---|--|
| 3-RC-1133 (SEE FIGURE A-36) | | | | | | | |
| B4.5 | H-J | 3-RC-1133-6 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 062500 | X - - - - X - - X - - - X - - - | ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |
| B4.5 | H-J | 3-RC-1133-18 VALVE TO BRANCH CONNECTION | PT UTOW UT45T | 200-1/56 DEV. 2 600-3/61 DEV. 12 | 063800 | X - - - X - - - X - - - | NO UT FROM THE UPSTREAM OR DOWNSTREAM SIDE DUE TO VALVE AND BRANCH CONNECTION CONFIGU- RATIONS. PT WAS PERFORMED AS A SUPPLEMENTAL EXAMINATION, ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |
| 3-RC-1123 (SEE FIGURE A-37) | | | | | | | |
| B4.5 | H-J | 3-RC-1123-14 PIPE TO FLANGE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 065200 | X - - - X - - - X - - - X - - - - X - - | NO EXAMINATION FROM THE DOWN- STREAM SIDE DUE TO FLANGE CONFIGURATION. |
| B4.12 | B-G-2 | 3-RC-1123-14FB FLANGE BOLTING | VT | 900-1/50 | 065300 | X - - - | ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 30

REACTOR COOLANT SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G I R S E H E I O E C G M R | REMARKS |
|----------------------------|--------------------------|---|---------------------------------------|-------------------------------|----------------------------|---|---|
| | | 3-RC-1123 (SEE FIGURE A-37) | | | | | |
| | | (CONTD) | | | | | |
| B4.5 | B-J | 3-RC-1123-15 FLANGE TO PIPE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 065400 | X - - - X - - - X - - - X - - - X - - - | NO EXAMINATION FROM THE UP- STREAM SIDE DUE TO FLANGE CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |
| | | 3-RC-1113 (SEE FIGURE A-38) | | | | | |
| B4.5 | B-J | 3-RC-1113-14 PIPE TO FLANGE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 067100 | X - - - X - - - - X - - X - - - - X - - | NO EXAMINATION FROM THE DOWN- STREAM SIDE DUE TO FLANGE CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |
| B4.12 | B-G-2 | 3-RC-1113-14FB FLANGE BULGING | VT | 900-1/50 | 067200 | X - - - | |
| | | 2-RC-1144 (SEE FIGURE A-39) | | | | | |
| B4.8 | B-J | 2-RC-1144-13 PIPE TO TEE | PT | 200-1/56 DEV. 2 | 068900 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 31

REACTOR COOLANT SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S F H E I O E C G M R | REMARKS |
|--------------------------------------|--------------------------|---|------------------------------|--------------------------------|----------------------------|---|---|
| 2-RC-1142 (SEE FIGURE A-40) ----- | | | | | | | |
| B4.8 | B-J | 2-RC-1142-20 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 071500 | X - - - | |
| B4.8 | B-J | 2-RC-1142-21 ELBOW TO PIPE | PT | 200-1/56 DEV. 2 | 071600 | X - - - | |
| 2-RC-1141 (SEE FIGURE A-47) ----- | | | | | | | |
| B4.5 | B-J | 2-RC-1141-1 TEE TO PIPE | PT UT10L UT45 UT45T | 200-1/56 600-39/2 DEV. 4 | 071800 | X - - - X - - - X - - - X - - - | LIMITED UT FROM THE DOWNSTREAM SIDE DUE TO THE PROXIMITY OF WELD 2-RC-1141-2. NO UT FROM THE UPSTREAM SIDE DUE TO TEE CONFIGURATION. PT WAS PER- FORMED AS A SUPPLEMENTAL EXAMINATION. ***BASIC CALIBRATION BLOCK*** 2-SS-160-.330-39-SAM |
| 2-RC-1134 (SEE FIGURE A-41) ----- | | | | | | | |
| B4.8 | B-J | 2-RC-1134-10 VALVE TO PIPE | PT | 200-1/56 DEV. 2 | 073100 | X - - - | |
| 2-RC-1132 (SEE FIGURE A-42) ----- | | | | | | | |
| B4.8 | B-J | 2-RC-1132-6 PIPE TO VALVE | PT | 200-1/56 DEV. 2 | 074500 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 32

REACTOR COOLANT SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|----------------------------|--------------------------|---|-----------------------|-------------------------------|----------------------------|---|--|
| | | 2-RC-1132 (SEE FIGURE A-42) | | | | | |
| | | (CONTD) | | | | | |
| B4.8 | B-J | 2-RC-1132-15 TEE TO PIPE | PT | 200-1/56 DEV. 2 | 075400 | X - - - | |
| B4.5 | B-J | 2-RC-1132-17N FLANGE TO PIPE | UTOL UT45 UT45T | 600-39/2 DEV. 4 | 075605 | X - - - X - - - X - - - | BASELINE EXAMINATION. NO EXAMINATION FROM THE UPSTREAM SIDE DUE TO FLANGE CONFIGU- RATION. ***BASIC CALIBRATION BLOCK*** 2-SS-160-.330-39-SAM |
| | | 2-RC-1131 (SEE FIGURE A-47) | | | | | |
| B4.8 | B-J | 2-RC-1131-5 TEE TO REDUCER | PT | 200-1/56 DEV. 2 | 076700 | X - - - | |
| | | 2-RC-1124 (SEE FIGURE A-43) | | | | | |
| B4.8 | B-J | 2-RC-1124-11 PIPE TO VALVE | PT | 200-1/56 DEV. 2 | 078000 | X - - - | |
| | | 2-RC-1122 (SEE FIGURE A-44) | | | | | |
| B4.8 | B-J | 2-RC-1122-4 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 079100 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 33

REACTOR COOLANT SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H F I O E C G M R | REMARKS |
|-----------------------------|--------------------------|---|-----------------|-------------------------------|----------------------------|---|---|
| 2-RC-1122 (SEE FIGURE A-44) | | | | | | | |
| (CONTD) | | | | | | | |
| 04.12 | B-G-2 | 2-RC-1122-16FB FLANGE BOLTING | VT | 900-1/50 | 080400 | X - - - | |
| 04.5 | B-J | 2-RC-1122-17N FLANGE TO PIPE | UTOL UT45T | 600-39/2 DEV. 4 | 080405 | X - - - X - - - | BASELINE EXAMINATION. LIMITED UTOL AND UTOW SCANS AND NO UT45 SCAN FROM THE DOWNSTREAM SIDE DUE TO THE PROXIMITY OF WELD 2-RC-1122-18. NO EXAMI- NATION FROM THE UPSTREAM SIDE DUE TO THE FLANGE CONFIGURA- TION. ***BASIC CALIBRATION BLOCK*** 2-SS-160-.330-39-SAM |
| 2-RC-1114 (SEE FIGURE A-45) | | | | | | | |
| 04.8 | B-J | 2-RC-1114-8 TEE TO PIPE | PT PT | 200-1/56 DEV. 2 | 082200 | - - - X X - - - | SEE CNF 04-1-008. ONE LINEAR INDICATION. RE-EXAMINATION AFTER COSMETIC BUFFING BY PSE&G REVEALED NO RECORDABLE INDICATIONS. |
| 04.8 | B-J | 2-RC-1114-9 PIPE TO VALVE | PT | 200-1/56 DEV. 2 | 082300 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 34

REACTOR COOLANT SYSTEM

(CONID)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|----------------------------|--------------------------|---|-----------------------|-------------------------------|----------------------------|---|---|
| | | 2-RC-1112 (SEE FIGURE A-46) | | | | | |
| B4.8 | B-J | 2-RC-1112-1 BRANCH CONNECTION TO PIPE | PT | 200-1/56 DEV. 2 | 083300 | X - - - | |
| B4.8 | B-J | 2-RC-1112-4 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 083600 | X - - - | |
| B4.12 | B-G-2 | 2-RC-1112-16FB FLANGE BOLTING | VT | 900-1/50 | 084900 | X - - - | |
| B4.5 | B-J | 2-RC-1112-17N FLANGE TO PIPE | UTOL UT45 UT45T | 600-39/2 DEV. 4 | 085005 | X - - - X - - - X - - - | BASLINE EXAMINATION. NO EXAMINATION FROM THE UPSTREAM SIDE DUE TO FLANGE CONFIGU- RATION. ***BASIC CALIBRATION BLOCK*** 2-SS-160-.330-39-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 35

RESIDUAL HEAT REMOVAL SYSTEM

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E J O F C G M R | REMARKS |
|------------------------------|--------------------------|---|---------------------------------------|-------------------------------|----------------------------|---|---|
| 14-RH-1111 (SEE FIGURE A-52) | | | | | | | |
| B4.7 | B-J | 14-RH-1111-1/6-SJ-1111 6 IN. BRANCH CONNECTION | PT | 200-1/56 DEV. 2 | 092300 | X - - - | |
| B4.5 | B-J | 14-RH-1111-4 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 092600 | X - - - - X X - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 14-SS-160-1.400-78-SAM |
| B4.5 | B-J | 14-RH-1111-7 ELBOW TO PIPE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 092900 | X - - - X - - - - X - - X - - - - X - - | LIMITED EXAMINATION FROM THE UPSTREAM SIDE DUE TO A WELDED METAL RING. |
| B4.5 | B-J | 14-RH-1111-14 VALVE TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 093600 | X - - - - X - - X - - - - X - - | NO EXAMINATION FROM THE UP- STREAM SIDE DUE TO VALVE CONFIGURATION. NO UTOW OR UT45I SCAN ON WELD DUE TO WELD CONFIGURATION. EXAMINATION SCHEDULED IN ACCORDANCE WITH IE BULLETINS 76-06 AND 79-17. |
| B4.5 | B-J | 14-RH-1111-15 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 093700 | X - - - - X - - X - - - - X X - | EXAMINATION SCHEDULED IN ACCORDANCE WITH IE BULLETINS 76-06 AND 79-17. |
| | | | | | | | ***BASIC CALIBRATION BLOCK*** 14-SS-160-1.400-78-SAM |

SALLM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 36

RESIDUAL HEAT REMOVAL SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|----------------------------|--------------------------|---|-------------------------------|-------------------------------|----------------------------|---|---|
| | | 14-RH-1111 (SEE FIGURE A-52) | | | | | |
| | | (CONTD) | | | | | |
| B4.5 | B-J | 14-RH-1111-16 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 093800 | X - - - - X - - X - - - - X X - | EXAMINATION SCHEDULED IN ACCORDANCE WITH IE BULLETINS 76-06 AND 79-17. ***BASIC CALIBRATION BLOCK*** 14-SS-160-1,400-78-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 37

SAFETY INJECTION SYSTEM

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|-------------------------------------|--------------------------|---|---------------------------------------|-------------------------------|----------------------------|---|---|
| <u>10-SJ-1141 (SEE FIGURE A-54)</u> | | | | | | | |
| B4.5 | B-J | 10-SJ-1141-9 PIPE TO ELBOW | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 096200 | X - - - X - - - - X X - X - - - - X X - | LIMITED EXAMINATION FROM THE UPSTREAM SIDE DUE TO THE PROXIMITY OF AN ADJACENT WELDED RING. ***BASIC CALIBRATION BLOCK*** 10-SS-160-1.119-22-SAM |
| B4.5 | B-J | 10-SJ-1141-10 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 096300 | X - - - - X X - X - - - - X X - | ***BASIC CALIBRATION BLOCK*** 10-SS-160-1.119-22-SAM |
| <u>10-SJ-1131 (SEE FIGURE A-55)</u> | | | | | | | |
| B4.9 | B-K-1 | 10-SJ-1131-SPS PENETRATION TO PIPE | UTOL UTOW UT45 UT45T | 600-3/61 DEV. 12 | 098000 | X - - - X - - - X - - - X - - - | NO EXAMINATION FROM THE UP- STREAM SIDE DUE TO PENETRATION CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 10-SS-160-1.119-22-SAM |
| B4.5 | B-J | 10-SJ-1131-6 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 098100 | X - - - - X X - X - - - - - X - | ***BASIC CALIBRATION BLOCK*** 10-SS-160-1.119-22-SAM |

SALIM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 38

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|------------------------------|--------------------------|---|---------------------------------------|-------------------------------|----------------------------|---|---|
| ----- | | | | | | | |
| 10-SJ-1131 (SEE FIGURE A-55) | | | | | | | |
| ----- | | | | | | | |
| (CONTD) | | | | | | | |
| ----- | | | | | | | |
| B4.5 | B-J | 10-SJ-1131-8 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 098300 | X - - - - X X - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 10-SS-160-1.119-22-SAM |
| B4.5 | B-J | 10-SJ-1131-9 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 098400 | X - - - - X X - X - - - - X X - | ***BASIC CALIBRATION BLOCK*** 10-SS-160-1.119-22-SAM |
| 10-SJ-1121 (SEE FIGURE A-56) | | | | | | | |
| ----- | | | | | | | |
| B4.5 | B-J | 10-SJ-1121-3 PIPE TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 099600 | X - - - - X X - X - - - - X X - | ***BASIC CALIBRATION BLOCK*** 10-SS-160-1.119-22-SAM |
| B4.5 | B-J | 10-SJ-1121-8 ELBOW TO PIPE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 100200 | X - - - X - - - - X X - X - - - X - - - | NO EXAMINATION FROM THE DOWN- STREAM SIDE DUE TO THE PROX- IMITY OF THE PENETRATION SLEEVE. ***BASIC CALIBRATION BLOCK*** 10-SS-160-1.119-22-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 39

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I D E C G M R | REMARKS |
|------------------------------|--------------------------|---|---------------------------------------|-------------------------------|----------------------------|---|--|
| 10-SJ-1121 (SEE FIGURE A-56) | | | | | | | |
| (CONTD) | | | | | | | |
| B4.5 | B-J | 10-SJ-1121-13 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 100800 | X - - - - X - - X - - - - X X - | ***BASIC CALIBRATION BLOCK*** 10-SS-160-1.119-22-SAM |
| 10-SJ-1111 (SEE FIGURE A-57) | | | | | | | |
| B4.5 | B-J | 10-SJ-1111-3 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 102100 | X - - - - X - - X - - - - X X - | ***BASIC CALIBRATION BLOCK*** 10-SS-160-1.119-22-SAM |
| B4.5 | B-J | 10-SJ-1111-10 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 102900 | X - - - - X X - X - - - - X X - | ***BASIC CALIBRATION BLOCK*** 10-SS-160-1.119-22-SAM |
| B4.5 | B-J | 10-SJ-1111-18 VALVE TO ELBOW | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 103700 | X - - - X - - - - - X - X - - - - X - - | NO EXAMINATION FROM THE UP- STREAM SIDE DUE TO VALVE CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 10-SS-160-1.119-22-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 40

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|------------------------------------|--------------------------|---|---------------------------------------|---|----------------------------|---|--|
| 8-SJ-1162 (SEE FIGURES A-58, A-59) | | | | | | | |
| B4.5 | B-J | 8-SJ-1162-1 VALVE TO PIPE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 104200 | X - - - X - - - - - X - X - - - - X - - | NO EXAMINATION FROM THE UP- STREAM SIDE DUE TO VALVE CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 8-SS-XX-.860-23-SAM |
| B4.5 | B-J | 8-SJ-1162-13 ELBOW TO PIPE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 105800 | X - - - X - - - - X X - X - - - - X X - | LIMITED EXAMINATION FROM THE DOWNSTREAM SIDE DUE TO AN ADJACENT BRANCH CONNECTION. ***BASIC CALIBRATION BLOCK*** 8-SS-XX-.860-23-SAM |
| B4.5 | B-J | 8-SJ-1162-23 PIPE TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 106900 | X - - - - - X - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 8-SS-XX-.860-23-SAM |
| 8-SJ-1152 (SEE FIGURES A-60, A-61) | | | | | | | |
| B4.9 | B-K-1 | 8-SJ-1152-1PL-3 PIPE LUG | PT UTOL UT45 UT45T | 200-1/56 DEV. 2 600-3/61 DEV. 12 | 108700 | X - - - X - - - X - - - X - - - | LIMITED UT DUE TO WELDED HANGER BRACKET. NO UTOW DUE TO WELD AREA CONFIGURATION. PT WAS PERFORMED AS A SUPPLE- MENTAL EXAMINATION. ***BASIC CALIBRATION BLOCK*** 8-SS-XX-.860-23-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 41

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G I R S E H E I O E C G M R | REMARKS |
|------------------------------------|--------------------------|---|---------------------------------------|-------------------------------|----------------------------|---|---|
| 8-SJ-1152 (SEE FIGURES A-60, A-61) | | | | | | | |
| (CONTD) | | | | | | | |
| 84.5 | B-J | 8-SJ-1152-3 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 109200 | X - - - - X X - X - - - - X X - | ***BASIC CALIBRATION BLOCK*** 8-SS-XX-.860-23-SAM |
| 84.5 | B-J | 8-SJ-1152-10 PIPE TO ELBOW | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 110300 | X - - - X - - - - X X - - X X - - X X - | LIMITED EXAMINATION FROM THE DOWNSTREAM SIDE DUE TO THE PROXIMITY OF A PIPE SUPPORT AND WELD 8-SJ-1152-11. |
| 8-SJ-1152-19 | | | | | | | ***BASIC CALIBRATION BLOCK*** 8-SS-XX-.860-23-SAM |
| 84.5 | B-J | 8-SJ-1152-19 PIPE TO TEE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 111300 | X - - - X - - - - - X - X - - - - - X - | LIMITED EXAMINATION FROM THE DOWNSTREAM SIDE DUE TO THE TEE CONFIGURATION. |
| 8-SJ-1145 (SEE FIGURE A-62) | | | | | | | ***BASIC CALIBRATION BLOCK*** 8-SS-XX-.860-23-SAM |
| 84.5 | B-J | 8-SJ-1145-8 PIPE TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 112400 | X - - - - X X - X - - - - X X - | ***BASIC CALIBRATION BLOCK*** 8-SS-XX-.860-23-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 42

SAFETY INJECTION SYSTEM

(CONT'D)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|-----------------------------|--------------------------|---|-------------------------------|-------------------------------|----------------------------|---|---|
| 8-SJ-1135 (SEE FIGURE A-63) | | | | | | | |
| B4.5 | B-J | 8-SJ-1135-6 PIPE TO ELBOW | UTOL UT45 UT45I UT60 | 600-3/61 DEV. 12 | 113600 | X - - - - - X - X - - - - X X - | ***BASIC CALIBRATION BLOCK*** 8-SS-XX-.860-23-SAM |
| 6-SJ-1142 (SEE FIGURE A-64) | | | | | | | |
| B4.5 | B-J | 6-SJ-1142-10 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 114800 | X - - - - X - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 6-SS-160-.764-25-SAM |
| B4.5 | B-J | 6-SJ-1142-11 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 114900 | X - - - - - X - X - - - - - X - | EXAMINATION SCHEDULED IN ACCORDANCE WITH IF BULLETINS 76-06 AND 79-17. ***BASIC CALIBRATION BLOCK*** 6-SS-160-.764-25-SAM |
| 6-SJ-1141 (SEE FIGURE A-65) | | | | | | | |
| B4.5 | B-J | 6-SJ-1141-6 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 115800 | X - - - - X X - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 6-SS-160-.764-25-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 43

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|--------------------------------------|--------------------------|---|---------------------------------------|-------------------------------|----------------------------|---|--|
| 6-SJ-1132 (SEE FIGURE A-66) ----- | | | | | | | |
| B4.7 | B-J | 6-SJ-1132-3/2-SJ-1139 2 IN. BRANCH CONNECTION | PT | 200-1/56 DEV. 2 | 117400 | X - - - | |
| B4.5 | B-J | 6-SJ-1132-6 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 117700 | X - - - - X X - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 6-SS-160-.764-25-SAM |
| B4.5 | B-J | 6-SJ-1132-11 ELBOW TO PIPE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 118400 | X - - - X - - - - X X - X - - - - - X - | LIMITED EXAMINATION FROM THE UPSTREAM SIDE DUE TO THE PROXIMITY OF WELD 6-SJ-1132-10 |
| 6-SJ-1131 (SEE FIGURE A-67) ----- | | | | | | | |
| B4.5 | B-J | 6-SJ-1131-2 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 118900 | X - - - - X X - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 6-SS-160-.764-25-SAM |
| 6-SJ-1122 (SEE FIGURE A-68) ----- | | | | | | | |
| B4.5 | B-J | 6-SJ-1122-3 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 121200 | X - - - - X X - X - - - - X X - | ***BASIC CALIBRATION BLOCK*** 6-SS-160-.764-25-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 44

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I U F C G M R | REMARKS |
|--------------------------------------|--------------------------|---|-------------------------------|-------------------------------|----------------------------|---|--|
| ----- | | | | | | | |
| 6-SJ-1121 (SEE FIGURE A-69) ----- | | | | | | | |
| B4.5 | B-J | 6-SJ-1121-4 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 122500 | X - - - - X - - X - - - - X X - | ***BASIC CALIBRATION BLOCK*** 6-SS-160-.764-25-SAM |
| 6-SJ-1112 (SEE FIGURE A-70) ----- | | | | | | | |
| B4.5 | B-J | 6-SJ-1112-3 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 123000 | X - - - - X X - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 6-SS-160-.764-25-SAM |
| 4-SJ-1194 (SEE FIGURE A-73) ----- | | | | | | | |
| B4.5 | B-J | 4-SJ-1194-6 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 125200 | X - - - X - - - X - - - X - - - | ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| B4.9 | B-K-1 | 4-SJ-1194-7PS-2 PENETRATION TO PIPE | UTOL UT45 UT45T | 600-3/61 DEV. 12 | 125500 | X - - - - X - - X - - - | NO EXAMINATION FROM THE UP- STREAM SIDE DUE TO PENETRATION CONFIGURATION. NO UTOW SCAN DUE TO THE WELD CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 4-SS-XX-.689-27-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 45

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|----------------------------|--------------------------|--|---------------------------------------|-------------------------------|----------------------------|---|---|
| | | 4-SJ-1194 (SEE FIGURE A-73) ----- (CONTD) ----- | | | | | |
| 84.5 | B-J | 4-SJ-1194-8 PIPE TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 125600 | X - - - - X - - X - - - - X - - | EXAMINATION SCHEDULED IN ACCORDANCE WITH IE BULLETINS 76-06 AND 79-17. ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| 84.5 | B-J | 4-SJ-1194-9 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 125700 | X - - - X - - - X - - - X - - - | ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| 84.5 | B-J | 4-SJ-1194-21 TEE TO PIPE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 126900 | X - - - X - - - - X - - X - - - - X - - | NO EXAMINATION FROM THE UP- STREAM SIDE DUE TO THE TEE CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| | | 4-SJ-1182 (SEE FIGURE A-74) ----- | | | | | |
| 84.5 | B-J | 4-SJ-1182-4 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 128000 | X - - - X - - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 46

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SLCT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRT PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O D N G T R S F H E I O E C G H R | REMARKS |
|-----------------------------|--------------------------|---|-------------------------------|-------------------------------|----------------------------|---|---|
| 4-SJ-1182 (SEE FIGURE A-74) | | | | | | | |
| (CONTD) | | | | | | | |
| B4.5 | B-J | 4-SJ-1182-10 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 128600 | X - - - X - - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| B4.5 | B-J | 4-SJ-1182-13 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 128900 | X - - - X - - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| B4.5 | B-J | 4-SJ-1182-22 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 130000 | X - - - - X - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| 4-SJ-1172 (SEE FIGURE A-75) | | | | | | | |
| B4.5 | B-J | 4-SJ-1172-9 ELBOW TO PIPE | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 131600 | X - - - X - - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 47

SAFETY INJECTION SYSTEM

(CONT'D)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S F H E I O E C G M R | REMARKS |
|---|--------------------------|---|---------------------------------------|-------------------------------|----------------------------|---|--|
| 4-SJ-1172 (SEE FIGURE A-75) ----- | | | | | | | |
| (CONT'D) ----- | | | | | | | |
| B4.5 | B-J | 4-SJ-1172-18 PIPE TO ELBOW | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 132500 | X - - - - X - - X - - - - X - - | ***BASIC CALIBRATION BLOCK*** 4-SS-160-.536-13 |
| 3-SJ-1192 (SEE FIGURE A-72) ----- | | | | | | | |
| B4.5 | B-J | 3-SJ-1192-12 PIPE TO VALVE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 135300 | X - - - X - - - - X - - - X - - - X - - | NO EXAMINATION FROM THE DOWN- STREAM SIDE DUE TO VALVE CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 3-SS-160-.451-30-SAM |
| 2-SJ-1149 (SEE FIGURES A-76, A-77) ----- | | | | | | | |
| B4.8 | B-J | 2-SJ-1149-5 VALVE TO PIPE | PT | 200-1/56 DEV. 2 | 136400 | X - - - | |
| B4.8 | B-J | 2-SJ-1149-17 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 137600 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 48

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S F H E I O E C G H R | REMARKS |
|----------------------------|--------------------------|---|-----------------|-------------------------------|----------------------------|---|---------|
| | | 2-SJ-1149 (SEE FIGURES A-76, A-77) | | | | | |
| | | (CONTD) | | | | | |
| B4.8 | B-J | 2-SJ-1149-37 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 139600 | X - - - | |
| | | 2-SJ-1147 (SEE FIGURE A-78) | | | | | |
| B4.8 | B-J | 2-SJ-1147-1 BRANCH CONNECTION TO PIPE | PT | 200-1/56 DEV. 2 | 140700 | X - - - | |
| B4.8 | B-J | 2-SJ-1147-8 PIPE TO FLANGE | PT | 200-1/56 DEV. 2 | 141400 | X - - - | |
| B4.8 | B-J | 2-SJ-1147-13 VALVE TO PIPE | PT | 200-1/56 DEV. 2 | 142000 | X - - - | |
| | | 2-SJ-1139 (SEE FIGURE A-79) | | | | | |
| B4.8 | B-J | 2-SJ-1139-8 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 144300 | X - - - | |
| B4.8 | B-J | 2-SJ-1139-33 ELBOW TO BRANCH CONNECTION | PT | 200-1/56 DEV. 2 | 146800 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 49

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S F H E I D E C G M R | REMARKS |
|------------------------------------|--------------------------|---|-----------------|-------------------------------|----------------------------|---|---|
| 2-SJ-1137 (SEE FIGURE A-80) | | | | | | | |
| B4.8 | B-J | 2-SJ-1137-7 ELBOW TO PIPE | PT | 200-1/56 DEV. 2 | 147500 | X - - - | |
| B4.8 | B-J | 2-SJ-1137-8 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 147600 | X - - - | |
| B4.8 | B-J | 2-SJ-1137-20 ELBOW TO PIPE | PT | 200-1/56 DEV. 2 | 148900 | X - - - | |
| B4.8 | B-J | 2-SJ-1137-32 COUPLING TO BRANCH CONNCTN | PT | 200-1/56 DEV. 2 | 150100 | X - - - | |
| 2-SJ-1129 (SEE FIGURES A-81, A-82) | | | | | | | |
| B4.8 | B-J | 2-SJ-1129-13 TEE TO REDUCER | PT | 200-1/56 DEV. 2 | 151500 | X - - - | |
| B4.8 | B-J | 2-SJ-1129-25 PIPE TO ELBOW | PT PT | 200-1/56 DEV. 2 | 152700 | - - - X X - - - | SEE CNF 84-1-007. ONE LINEAR AND ONE ROUND INDICATION. AFTER COSMETIC BUFFING BY PSE&G NO RECORDABLE INDICA- TIONS WERE OBSERVED. |
| B4.8 | B-J | 2-SJ-1129-37 PIPE TO COUPLING | PT | 200-1/56 DEV. 2 | 153900 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 50

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|--|--------------------------|---|-----------------|-------------------------------|----------------------------|---|---|
| 2-SJ-1129 (SEE FIGURES A-81, A-82) | | | | | | | |
| (CONTD) | | | | | | | |
| B4.8 | B-J | 2-SJ-1129-48 COUPLING TO BRANCH CONNCTN | PT | 200-1/56 DEV. 2 | 155000 | X - - - | |
| 2-SJ-1128 (SEE FIGURES A-83, A-84, A-85) | | | | | | | |
| B4.8 | B-J | 2-SJ-1128-4 PIPE TO VALVE | PT | 200-1/56 DEV. 2 | 155700 | X - - - | |
| B4.8 | B-J | 2-SJ-1128-18 FLBOW TO PIPE | PT | 200-1/56 DEV. 2 | 157100 | X - - - | |
| B4.8 | B-J | 2-SJ-1128-30 PIPE TO TEE | PT | 200-1/56 DEV. 2 | 158300 | X - - - | |
| B4.8 | B-J | 2-SJ-1128-41 COUPLING TO PIPE | PT PT | 200-1/56 DEV. 2 | 159500 | - - - X X - - - | SEE CNF 84-1-005. SIX LINEAR INDICATIONS. AFTER COSMETIC BUFFING BY PSF&G NO RECORDABLE INDICATIONS WERE OBSERVED. |
| B4.8 | B-J | 2-SJ-1128-53 ELBOW TO PIPE | PT | 200-1/56 DEV. 2 | 160700 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 51

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G I R S F H E I U E C G M R | REMARKS |
|--|--------------------------|---|-----------------------------------|--|----------------------------|---|--|
| 2-SJ-1128 (SEE FIGURES A-83, A-84, A-85) | | | | | | | |
| (CONTD) | | | | | | | |
| 84.5 | B-J | 2-SJ-1128-74 PIPE TO REDUCER | PT PT UTOL UT45 UT45T | 200-1/56 DEV. 2 600-39/2 DEV. 4 | 162800 | - - - X X - - - X - - - X - - - X - - - | SEE CNF 84-1-009. ONE LINEAR INDICATION. AFTER COSMETIC BUFFING BY PSE&G NO RECORDABLE INDICATIONS WERE OBSERVED. NO UT FROM THE DOWNSTREAM SIDE DUE TO THE REDUCER CONFIGU- RATION. PT WAS PERFORMED AS A SUPPLEMENTAL EXAMINATION. ***BASIC CALIBRATION BLOCK*** 2-SS-160-.330-59-SAM |
| 2-SJ-1119 (SEE FIGURE A-86) | | | | | | | |
| 84.12 | H-G-2 | 2-SJ-1119-2FB FLANGE BOLTING | VT | 900-1/50 | 163100 | X - - - | |
| 84.8 | B-J | 2-SJ-1119-5 VALVE TO PIPE | PT | 200-1/56 DEV. 2 | 163400 | X - - - | |
| 84.8 | B-J | 2-SJ-1119-17 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 164600 | X - - - | |
| 84.8 | B-J | 2-SJ-1119-23 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 165200 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 52

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I D E C G N R | REMARKS |
|---|--------------------------|---|-----------------|-------------------------------|----------------------------|---|---|
| 2-SJ-1118 (SEE FIGURES A-87, A-88) | | | | | | | |
| B4.12 | B-G-2 | 2-SJ-1118-4FH FLANGE BOLTING | VI | 900-1/50 | 165800 | X - - - | |
| B4.8 | B-J | 2-SJ-1118-5 FLANGE TO PIPE | PT | 200-1/56 DEV. 2 | 165900 | X - - - | |
| B4.8 | B-J | 2-SJ-1118-17 TEE TO PIPE | PT PT | 200-1/56 DEV. 2 | 167100 | - - - X X - - - | SEE CNF 84-1-001. ONE LINEAR AND ONE ROUND INDICATION. AFTER COSMETIC BUFFING BY PSE&G NO RECORDABLE INDICA- TIONS WERE OBSERVED. |
| B4.8 | B-J | 2-SJ-1118-29 ELBOW TO PIPE | PT PT | 200-1/56 DEV. 2 | 168300 | - - - X X - - - | SEE CNF 84-1-006. ONE LINEAR INDICATION. AFTER COSMETIC BUFFING BY PSE&G NO RECORDABLE INDICATIONS WERE OBSERVED. |
| 1-1/2-SJ-1142(SEE FIGURES A-89,A-90,A-91) | | | | | | | |
| B4.12 | B-G-2 | 1-1/2-SJ-1142-7FH FLANGE BOLTING | VI | 900-1/50 | 170700 | X - - - | |
| B4.8 | B-J | 1-1/2-SJ-1142-9 PIPE TO VALVE | PT | 200-1/56 DEV. 2 | 170900 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 53

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S F H E I O E C G I R | REMARKS |
|--|--------------------------|---|-----------------|-------------------------------|----------------------------|---|---|
| 1-1/2-SJ-1142 (SEE FIGURES A-89, A-90, A-91) | | | | | | | |
| (CONTD) | | | | | | | |
| B4.8 | H-J | 1-1/2-SJ-1142-21 ELBOW TO PIPE | PT | 200-1/56 DEV. 2 | 172100 | X - - - | |
| B4.8 | H-J | 1-1/2-SJ-1142-33 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 173300 | X - - - | |
| B4.8 | H-J | 1-1/2-SJ-1142-45 ELBOW TO PIPE | PT | 200-1/56 DEV. 2 | 174500 | X - - - | |
| 1-1/2-SJ-1132 (SEE FIGURES A-92, A-93) | | | | | | | |
| B4.8 | B-J | 1-1/2-SJ-1132-1 BRANCH CONNCTN TO COUPLING | PT | 200-1/56 DEV. 2 | 175400 | X - - - | |
| B4.8 | B-J | 1-1/2-SJ-1132-13 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 176600 | X - - - | |
| B4.8 | B-J | 1-1/2-SJ-1132-23 ELBOW TO PIPE | PT | 200-1/56 DEV. 2 | 177900 | - - - X X - - - | SEE CNF 84-1-002. TWO LINEAR INDICATIONS. AFTER COSMETIC BUFFING BY PSE&G NO RECORDABLE WERE OBSERVED. |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 54

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|----------------------------|--------------------------|---|-----------------|-------------------------------|----------------------------|---|---|
| | | 1-1/2-SJ-1112 (SEE FIGURES A-92, A-93) | | | | | |
| | | (CONTD) | | | | | |
| B4.8 | B-J | 1-1/2-SJ-1112-35 ELBOW TO PIPE | PT | 200-1/56 DEV. 2 | 179100 | X - - - | |
| | | 1-1/2-SJ-1122 (SEE FIGURES A-94, A-95) | | | | | |
| B4.8 | B-J | 1-1/2-SJ-1122-3 PIPE TO ELBOW | PT PT | 200-1/56 DEV. 2 | 180500 | - - - X X - - - | SEE CNF 84-1-003. TWO LINEAR INDICATIONS. AFTER COSMETIC BUFFING BY PSF&G NO RECORDABLE WERE OBSERVED. |
| B4.8 | B-J | 1-1/2-SJ-1122-15 VALVE TO PIPE | PT | 200-1/56 DEV. 2 | 181800 | X - - - | |
| B4.9 | B-K-1 | 1-1/2-SJ-1122-15PS-1 & 2 PIPE SUPPORT | PT | 200-1/56 DEV. 2 | 182000 | X - - - | |
| B4.8 | B-J | 1-1/2-SJ-1122-17 ELBOW TO PIPE | PT | 200-1/56 DEV. 2 | 182200 | X - - - | |
| B4.8 | B-J | 1-1/2-SJ-1122-37 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 184200 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 55

SAFETY INJECTION SYSTEM

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|----------------------------|--------------------------|---|-----------------|-------------------------------|----------------------------|---|---|
| | | 1-1/2-SJ-1112 (SEE FIGURES A-96, A-97) | | | | - - - - | |
| B4.8 | B-J | 1-1/2-SJ-1112-3 PIPE TO ELBOW | PT | 200-1/56 DEV. 2 | 185400 | X - - - | |
| B4.8 | B-J | 1-1/2-SJ-1112-15 PIPE TO ELBOW | PT PT | 200-1/56 DEV. 2 | 186700 | - - - X X - - - | SEE CNF 84-1-004. TWO LINEAR INDICATIONS. AFTER COSMETIC BUFFING BY PSE&G NO RECORDABLE WERE OBSERVED. |
| B4.8 | B-J | 1-1/2-SJ-1112-39 ELBOW TO PIPE | PT | 200-1/56 DEV. 2 | 189100 | X - - - | |
| B4.8 | B-J | 1-1/2-SJ-1112-44 PIPE TO VALVE | PT | 200-1/56 DEV. 2 | 189600 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 56

REACTOR COOLANT PUMPS

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S F H E I D E C G M R | REMARKS |
|------------------------------|--------------------------|---|-------------------------------------|--|----------------------------|--|--|
| ----- | | | | | | | |
| PUMP MOTOR FLYWHEEL ----- | | | | | | | |
| RG1.14 | --- | 11-PMP-FLW PUMP MOTOR FLYWHEEL | PT PT MT MT UT0 UT45 | 200-1/56 DEV. 2 300-1/26 DEV. 1 600-6/22 DEV. 7 | 191300 | - - - X X - - - - - - X X - - - X - - - X - - - | SEE CNF 84-1-012. 10 LINEAR PT INDICATIONS ON INNER BORE. AFTER SPOT GRINDING A ONE SQUARE INCH AREA THE INDICA- TIONS WERE RESOLVED AS NONRE- LEVANT AND ACCEPTED BY PSE&G. SEE CNF 84-1-013. 29 MT INDI- CATIONS ON TOP SURFACE. AFTER REWORK THE REEXAMINATION RE- VEALED NO RECORDABLE INDICA- TIONS. PT ON INNER BORE AND KEYWAYS, AND MT AND UT ON TOP AND BOTTOM SURFACES. ***BASIC CALIBRATION BLOCK*** 5-CSCL-42-SAM 7-CSCL-50-SAM |
| RG1.14 | --- | 13-PMP-FLW PUMP MOTOR FLYWHEEL | PT MT MT UT0 UT45 | 200-1/56 DEV. 2 300-1/26 DEV. 1 600-6/22 DEV. 7 | 192900 | X - - - - - - X X - - - X - - - X - - - | SEE CNF'S 84-1-010 AND 84-1-014. SIX MT INDICATIONS ON BOTTOM SURFACE AND ONE INDICATION ON TOP SURFACE. AFTER REWORK THE REEXAMINATION REVEALED NO RECORDABLE INDICA- TIONS. PT ON INNER BORE AND KEYWAYS, AND MT AND UT ON TOP AND BOTTOM SURFACES. ***BASIC CALIBRATION BLOCK*** 5-CSCL-42-SAM 7-CSCL-50-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 57

REACTOR COOLANT PUMPS

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G I R S I H F I O E C G H R | REMARKS |
|----------------------------|--------------------------|---|-------------------------------------|--|----------------------------|--|---|
| ----- | | | | | | | |
| PUMP MOTOR FLYWHEEL | | | | | | | |
| ----- | | | | | | | |
| RG1.14 | --- | 14-PMP-FLW PUMP MOTOR FLYWHEEL | PT PT MT MT UT0 UT45 | 200-1/56 DEV. 2 300-1/26 DEV. 1 600-6/22 DEV. 7 | 193700 | - - - X X - - - - - - X X - - - X - - - X - - - | SEE CNF 84-1-011. THREE LIN- EAR PT INDICATIONS ON INNER BORE. AFTER SPOT GRINDING A ONE SQUARE INCH AREA THE INDIC- ATIONS WERE RESOLVED AS NON- RELEVANT AND ACCEPTED BY PSE&G SEE CNF 84-1-014. MT INDICA- TIONS ON TOP SURFACE. AFTER REWORK THE REEXAMINATION RE- VEALED NO RECORDABLE INDICA- TIONS. PT ON INNER BORE AND KEYWAYS, AND MT AND UT ON TOP AND BOTTOM SURFACES. ***BASIC CALIBRATION BLOCK*** 5-CSCL-42-SAM 7-CSCL-50-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 58

VALVES

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G I R S F H E I O E C G M R | REMARKS |
|----------------------------|--------------------------|---|-----------------|-------------------------------|----------------------------|---|---------|
| | | HOLDING ----- | | | | | |
| B6.9 | B-G-2 | 1 CV 77 ON LINE 3-CV-1133 | VT | 900-1/50 | 194000 | X - - - | |
| B6.9 | B-G-2 | 1 CV 78 ON LINE 3-CV-1133 | VT | 900-1/50 | 194100 | X - - - | |
| B6.9 | B-G-2 | 1 CV 79 ON LINE 3-CV-1141 | VT | 900-1/50 | 194200 | X - - - | |
| B6.9 | B-G-2 | 1 CV 80 ON LINE 3-CV-1141 | VT | 900-1/50 | 194300 | X - - - | |
| B6.9 | B-G-2 | 1 CV 275 ON LINE 3-CV-1141 | VT | 900-1/50 | 194500 | X - - - | |
| B6.9 | B-G-2 | 1 PR 3 ON LINE 6-PR-1103 | VT | 900-1/50 | 194900 | X - - - | |
| B6.9 | B-G-2 | 1 PR 5 ON LINE 6-PR-1105 | VT | 900-1/50 | 195100 | X - - - | |
| B6.9 | B-G-2 | 1 PR 7 ON LINE 3-PR-1107 | VT | 900-1/50 | 195300 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 59

VALVES

(CONTD)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O F C G M R | REMARKS |
|----------------------------|--------------------------|---|-----------------|-------------------------------|----------------------------|---|---------|
| | | BOLTING ----- (CONTD) ----- | | | | | |
| B6.9 | B-G-2 | 1 PS 1 ON LINE 4-PS-1111 | VT | 900-1/50 | 195400 | X - - - | |
| B6.9 | B-G-2 | 1 PS 24 ON LINE 4-PS-1111 | VT | 900-1/50 | 195600 | X - - - | |
| B6.9 | B-G-2 | 1 PS 25 ON LINE 4-PS-1111 | VT | 900-1/50 | 195700 | X - - - | |
| B6.9 | B-G-2 | 11 RC 20 ON LINE 5-RC-1113 | VT | 900-1/50 | 196700 | X - - - | |
| B6.9 | B-G-2 | 12 RC 20 ON LINE 3-RC-1123 | VT | 900-1/50 | 197600 | X - - - | |
| B6.9 | B-G-2 | 12 RC 23 ON LINE 3-RC-1123 | VT | 900-1/50 | 197700 | X - - - | |
| B6.9 | B-G-2 | 13 RC 20 ON LINE 5-RC-1133 | VT | 900-1/50 | 198500 | X - - - | |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 1 COMPONENTS

PAGE 60

VALVES

(CONT'D)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRT PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|----------------------------|--------------------------|---|-----------------|-------------------------------|----------------------------|---|---------|
| | | BOLTING ----- | | | | | |
| | | (CONT'D) ----- | | | | | |
| B6.9 | B-G-2 | 13 RC 23 ON LINE 3-RC-1133 | VT | 900-1/50 | 198600 | X - - - | |
| B6.9 | B-G-2 | 14 RC 20 ON LINE 3-RC-1143 | VT | 900-1/50 | 199300 | X - - - | |
| B6.9 | B-G-2 | 14 RC 23 ON LINE 3-RC-1143 | VT | 900-1/50 | 199400 | X - - - | |

CLASS 2 COMPONENTS

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 2 COMPONENTS

PAGE 61

FEEDWATER SYSTEM

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|------------------------------|--------------------------|---|---------------------------------------|-------------------------------|----------------------------|---|--|
| ----- | | | | | | | ----- |
| 14-BF-2141 (SEE FIGURE B-10) | | | | | | | ----- |
| C2.1 | C-G | 14-BF-2141-16 REDUCER TO NOZZLE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 210600 | X - - - X - - - - X X - X - - - - X X - | LIMITED EXAMINATION FROM THE UPSTREAM SIDE DUE TO THE PROX- IMITY OF TWO THERMOCOUPLES. LIMITED EXAMINATION ON WELD DUE TO WELD CROWN CONFIGU- RATION. NO EXAMINATION FROM THE DOWNSTREAM SIDE DUE TO THE NOZZLE CONFIGURATION. WITH IE BULLETIN 79-13. ***BASIC CALIBRATION BLOCK*** 14-CS-80-.760-35-SAM |
| 14-BF-2131 (SEE FIGURE B-11) | | | | | | | ----- |
| C2.1 | C-G | 14-BF-2131-23 ELBOW TO ELBOW | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 213350 | X - - - - - - X - X X - X - - - - X X - | SEE CNF 84-1-016. ONE INDICA- TION WAS OBSERVED DURING THE UTOW SCAN. INDICATION WAS RESOLVED AS A CODE ALLOWABLE INCLUSION BY SWRI PERSONNEL AND WAS ACCEPTED BY PS&G PERSONNEL AFTER EVALUATION. LIMITED EXAMINATION FROM THE DOWNSTREAM SIDE DUE TO AN ADJACENT THERMOCOUPLE. ***BASIC CALIBRATION BLOCK*** 16-CS-160-1.610-34-SAM 14-CS-80-.760-35-SAM |
| C2.1 | C-G | 14-BF-2131-24 ELBOW TO NOZZLE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 213400 | X - - - X - - - - - X - X - - - - X X - | LIMITED EXAMINATION FROM THE UPSTREAM SIDE DUE TO A WELD OVERLAY. LIMITED EXAMINATION FROM THE DOWNSTREAM SIDE DUE TO NOZZLE CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 16-CS-160-1.610-34-SAM 14-CS-80-.760-35-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 2 COMPONENTS

PAGE 62

FEEDWATER SYSTEM

(CONID)

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G I R S E H E I O E C G M R | REMARKS |
|------------------------------|--------------------------|---|---------------------------------------|-------------------------------|----------------------------|---|---|
| 14-BF-2121 (SEE FIGURE B-12) | | | | | | | |
| C2.1 | C-G | 14-BF-2121-18 ELBOW TO REDUCER | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 217780 | X - - - - X X - X - - - - X X - | ***BASIC CALIBRATION BLOCK*** 14-CS-80-.760-35-SAM |
| C2.1 | C-G | 14-BF-2121-19 REDUCER TO NOZZLE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 217790 | X - - - X - - - - X X - X - - - - X - - | NO EXAMINATION FROM THE DOWN- STREAM SIDE DUE TO THE NOZZLE CONFIGURATION. LIMITED UT45T SCAN DUE TO THE WELD CROWN CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 14-CS-80-.760-35-SAM |
| 14-BF-2111 (SEE FIGURE B-13) | | | | | | | |
| C2.1 | C-G | 14-BF-2111-17 ELBOW TO REDUCER | UTOL UT45 UT45T UT60 | 600-3/61 DEV. 12 | 220570 | X - - - - X X - X - - - - X X - | ***BASIC CALIBRATION BLOCK*** 14-CS-80-.760-35-SAM |
| C2.1 | C-G | 14-BF-2111-18 REDUCER TO NOZZLE | UTOL UTOW UT45 UT45T UT60 | 600-3/61 DEV. 12 | 220572 | X - - - X - - - - - X - X - - - - - X - | NO EXAMINATION FROM THE DOWN- STREAM SIDE DUE TO THE NOZZLE CONFIGURATION. LIMITED UT45T SCAN DUE TO THE WELD CROWN CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 14-CS-80-.760-35-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 2 COMPONENTS

PAGE 63

CHEMICAL AND VOLUME CONTROL SYSTEM

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|--|--------------------------|---|-----------------------|-------------------------------|----------------------------|---|--|
| 8-CV-2101 (SEE FIGURES B-15, B-16, B-17) | | | | | | | |
| C2.1 | C-F | 8-CV-2101-21 TEE TO PIPE | UTOL UT45 UT45T | 800-36/28 DEV. 12 | 220622 | X - - - - X - - - X X - | EXAMINATION SCHEDULED IN ACCORDANCE WITH IF BULLETINS 76-06 AND 79-17. NO EXAMINA- TION FROM THE UPSTREAM SIDE DUE TO THE TEE CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 8-SS-10-.140-24-SAM |
| C2.1 | C-F | 8-CV-2101-25 ELBOW TO PIPE | UTOL UT45 UT45T | 800-36/28 DEV. 12 | 220630 | X - - - - X X - X - - - | EXAMINATION SCHEDULED IN ACCORDANCE WITH IF BULLETINS 76-06 AND 79-17. ***BASIC CALIBRATION BLOCK*** 8-SS-20-.268-33-SAM |
| C2.1 | C-F | 8-CV-2101-40 PIPE TO TEE | UTOL UT45 UT45T | 800-36/28 DEV. 12 | 220660 | X - - - X - - - X - - - | EXAMINATION SCHEDULED IN ACCORDANCE WITH IF BULLETINS 76-06 AND 79-17. NO EXAMINA- TION FROM THE DOWNSTREAM SIDE DUE TO THE TEE CONFIGURATION. ***BASIC CALIBRATION BLOCK*** 8-SS-10-.140-24-SAM |

SALEM GENERATING STATION UNIT 1
1984 INSERVICE EXAMINATION
CLASS 2 COMPONENTS

PAGE 64

SAFETY INJECTION SYSTEM

| ASME SECT XI ITEM NO | ASME SECT XI CATGY | WELD NUMBER AND/OR EXAMINATION AREA IDENTIFICATION | EXAM. METHOD | SWRI PROCEDURE NO./REV. | SUMMARY SHEET NUMBER | N I O O N G T R S E H E I O E C G M R | REMARKS |
|-----------------------------|--------------------------|---|-----------------------|-------------------------------|----------------------------|---|--|
| B-SJ-2152 (SEE FIGURE B-56) | | | | | | | |
| C2.1 | C-F | B-SJ-2152-21 PIPE TO ELBOW | UTOL UT45 UT45T | 800-56/28 DEV. 12 | 264022 | X - - - X - X - - | EXAMINATION SCHEDULED IN ACCORDANCE WITH IE BULLETINS 76-06 AND 79-17. ***BASIC CALIBRATION BLOCK*** 8-SS-40-.330-44-SAM |

FORM NIS-1 OWNERS'S DATA REPORT FOR INSERVICE INSPECTIONS
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2. Plant: Salem Generating Station P.O. Box E,
Hancock's Bridge, N.J. 08038
3. Plant Unit 1
4. Owner Certificate of Authorization (if required) N/A.
5. Commercial Service Data 7/1/77.
6. National Board Number for Unit N/A.
7. Examinations Dates: 10/16/82 through 5/21/83.
8. This examination report is for the first examination
conducted in the third inspection period which ends
July 1, 1987. Salem's first inspection interval is from
July 1, 1977 to July 1, 1987.
9. Components Inspected.

| <u>COMPONENTS OR APPURTENANCE</u> | <u>MANUFACTURER OR INSTALLER</u> | <u>MANUFACTURER OR INSTALLER SER. NO.</u> | <u>STATION OR PROVINCE NUMBER</u> | <u>NATIONAL BOARD NO.</u> |
|-----------------------------------|---|---|-----------------------------------|---------------------------|
| #1 Reactor Vessel | Combustion Engineering | 66201 Head 66101 Vessel | N/A | 20757 |
| #11 Steam Generator | Westinghouse Tampa Div. P.O. Box 19218 Tampa, FL 33616 | 1003 | N/A | 68-10 |
| #12 Steam Generator | " " | 1022 | N/A | 68-08 |
| #13 Steam Generator | " " | 1023 | N/A | 68-09 |
| #14 Steam Generator | " " | 1203 | N/A | 68-51 |
| #11 Regen. Ht. Exch. | Sentry Equip. Corp. Oconomowoc, WI | 4195-A4 7,8,9 | N/A | 385, 386, 387 |

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6. National Board Number for Unit N/A.
9. Components Inspected (cont'd).

| COMPONENTS OR APPURTENANCE | MANUFACTURER OR INSTALLER | MANUFACTURER OR INSTALLER SER. NO. | STATION OR PROVINCE NUMBER | NATIONAL BOARD NO. |
|---|---|------------------------------------|----------------------------|--------------------|
| #1 Pressurizer | Delta Southern | 1011 | N/A | 68-8 |
| Chemical Volume & Control Piping System | United Engineers & Constructors (UE&C) 30 South 17th St., Phila. PA 19101 | N/A | N/A | N/A |
| Containment Spray Piping System | UE&C | N/A | N/A | N/A |
| Mainsteam Piping Sys. | UE&C | N/A | N/A | N/A |
| #1 VCT Tank | Joseph Oats & Sons, Inc. | 1781-2A | N/A | 374 |
| #1 Excess Letdown Heat Exchanger | Atlas Industries 81 Somerset Place Clifton, NJ | 850 | N/A | 701 |
| #1 Letdown Heat Exchanger | Atlas Industries | N/A | N/A | 694 |
| #1 RHR Heat Exchanger | Engineers & Fabricators, Inc. | S15860-C | N/A | 1122 |

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9. Components Inspected (cont'd).

| <u>COMPONENTS OR APPURTENANCE</u> | <u>MANUFACTURER OR INSTALLER</u> | <u>MANUFACTURER OR INSTALLER SER. NO.</u> | <u>STATION OR PROVINCE NUMBER</u> | <u>NATIONAL BOARD NO.</u> |
|-----------------------------------|----------------------------------|---|-----------------------------------|---------------------------|
| Pressurizer Relief Piping System | UE&C | N/A | N/A | N/A |
| Reactor Coolant Piping Sys. | UE&C | N/A | N/A | N/A |
| Residual Heat Removed Piping Sys. | UE&C | N/A | N/A | N/A |
| Steam Gen. Feed Piping System | UE&C | N/A | N/A | N/A |
| Safety Inject. Piping System | UE&C | N/A | N/A | N/A |

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10. Abstracts of Examinations:

NOTE: This report also contains augmented examinations required by Salem Technical Specifications and Regulatory Guides, Circulars, and bulletins issued by the United States Nuclear Regulatory Commission.

Examinations were conducted by PSE&G as well as companies under contract to PSE&G. The following is a brief summary with further details found in the attached report and on file at the Salem Generating Station.

Since nearly all inservice examination requirements can be found in Salem's Technical Specifications, this summary lists these requirements first arranged according to Tech. Spec. paragraph number followed by applicable NRC circulars and bulletins.

1.0 Technical Specification 4.0.5 - ASME XI

These examinations constituted the sixth ISI performed at Salem, Unit 1, and the first ISI of the third 40-month period of commercial operation. The components were examined in accordance with the

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6. National Board Number for Unit N/A.
10. Examination Summary (Cont'd)

"Examination Plan for the 1984 Inservice
Examination of Salem Generating Station, Unit 1."

1.1 Summary

Southwest Research Institute (SwRI) -
conducted one hundred twenty-one (121)
ultrasonic, eighty (80) liquid penetrant, five
(5) magnetic particle, and thirty-two (32)
visual examinations on the main steam,
residual heat removal, reactor coolant,
chemical and volume control, steam generator
feedwater, safety injection, and containment
spray systems.

There were sixteen (16) nonconformances
reported by SwRI:

Visual examinations on the reactor vessel
studs numbered 23-27 revealed severe pitting
and corrosion. It should be noted that these
studs were in the vicinity of a reactor vessel
head leak. These studs were reported to PSE&G
by SwRI on Customer Notification Form (CNF)

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10. Examination Summary (Cont'd)

84-1-15 and were rejected and replaced with studs S6 through S10. There were also three (3) other studs rejected by PSE&G for being out of tolerance. These were replaced with studs S2 through S4.

Baseline UT and MT were performed on the replacement studs and found acceptable.

Liquid penetrant examinations revealed indications on nine (9) small bore fillet welds. These were reported to PSE&G on CNFs 84-1-001 to 84-1-009. All indications were removed by light blending with a flapper wheel. The areas were reexamined by liquid penetrant and ultrasonic thickness examinations to assure minimum wall was not violated. No deficiencies were found on the reexaminations.

During UT examinations one reportable indication was noted on a feedwater weld and reported to PSE&G on CNF 84-1-16. The indication was resolved by SwRI personnel as a Code-acceptable inclusion and was accepted

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6. National Board Number for Unit N/A.
10. Examination Summary (Cont'd)

after evaluation by PSE&G. The remaining UT examinations revealed numerous insignificant and geometric indications; however, no additional reportable UT indications were observed.

1.2 Catalytic, Inc. - Site Quality Control Group - conducted visual examinations on three hundred eighty-one (381) supports. Six (6) discrepancies were found i.e. rust, loose nuts, etc., all noted conditions were corrected.

1.3 PSE&G Maintenance Department - conducted thirty-three (33) safety relief valve lift set tests. Twenty (20) main steam safeties and thirteen (13) various system relief valves were tested. Of all the valves tested four (4) accumulator relief valves were found out of tolerance, and seven (7) main steam safeties were found to exceed the allowable limits

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10. Examination Summary (Cont'd)

(worst case was 8.3 lbs. high and 13.0 lbs low). In addition, the Maintenance Department conducted lift set tests on three (3) vacuum breakers, (which are outside the scope of Section XI) and were found acceptable.

1.3.1 In addition to the valves tested on-site, the three (3) pressurizer relief valves (1PR3, 4, and 5) were tested by Wyle Laboratories at Huntsville, Alabama.

The "As Received" tests revealed that 1PR3 and 1PR4 wre found satisfactory but 1PR5 lifted 16 lbs. high and was leaking. All three (3) valves had leakage on the post test leakage test.

All valves were then disassembled and inspected by a Crosby Valve representative. No significant problems were found. All valves were cleaned and the seats and discs lapped

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6. National Board Number for Unit N/A.
10. Examination Summary (Cont'd)

1.3.1 (Cont'd)

prior to reassembly. After reassembly,
all valves were tested and found
satisfactory.

- 1.4 NUS corporation, under the direction of the
Salem ISI Group, conducted a reactor vessel
internal examination on all accessible areas
as required by ASME XI (fuel was removed).

The results of this examination revealed no
abnormal conditions within the reactor vessel.

- 1.5 PSE&G Nuclear Site Maintenance - ISI Group,
conducted five, Ten Year Hydrostatic Pressure
Test procedures, this outage. The following
piping sections were tested: the pressurizer
relief valve discharge piping, the pressurizer
relief tank, the high pressure portion of
component cooling water inside containment,
the reactor coolant system, the reactor
coolant pump sealwater return and bypass
lines, and the changing pump minimum flow

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6. National Board Number for Unit N/A.
10. Examination Summary (Cont'd)

1.5 (Cont'd)

recirculating lines. Other than mechanical joint or valve seat leakage (which were corrected), no leakage was identified.

2.0 Technical Specification 4.4.5.0 - Steam Generator
Tube Eddy Current Examination

2.1 Summary

Eddy Current examinations were conducted on No. 12 and No. 14 steam generator tubes this outage. The examinations were conducted by Westinghouse Electric Corporation and coordinated by the Salem ISI Group.

The results of the examinations are as follows:

| | #12 | #14 |
|---|-------|-------|
| Full length (Hot or Cold Leg) | 3,168 | 3,159 |
| "U" Bend (From Hot Leg to #7 Support Plate Cold Leg) | 178 | 173 |
| TOTAL | 3,346 | 3,332 |

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6. National Board Number for Unit N/A.
10. Examination Summary (Cont'd)

% of Indications

| T.S. Classification | #12 | #14 |
|---------------------------------|-----|-----|
| <20% (Imperfection) | 9 | 39 |
| <u>>20-39%</u> (Degraded) | 9 | 18 |
| <u>>40%</u> (Defective) | 0 | 0 |

From the results of the examinations
no (0) tubes were plugged in either
No. 12 or No. 14 steam generator.

At this time the total number of tubes
plugged in the Salem Unit 1 generators
are as follows:

| | | | | |
|---------------|-----------|-----------|-----------|-----------|
| Generator # | <u>11</u> | <u>12</u> | <u>13</u> | <u>14</u> |
| Tubes Plugged | 14 | 18 | 13 | 31 |

FORM NIS-1 OWNERS'S DATA REPORT FOR INSERVICE INSPECTIONS
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5. Commercial Service Data 7/1/77.
6. National Board Number for Unit N/A.
10. Examination Summary (Cont'd)

3.0 Technical Specification 4.4.9.1.2 "Reactor Vessel
Irradiated Specimens"

3.1 Summary

Capsule "Y" was removed from Unit 1 reactor vessel this outage and sent to Westinghouse Electric Corporation for analysis.

As of yet, results have not been received from Westinghouse.

4.0 Technical Specification 4.4.10.1.1 (b) "Reactor
Coolant Pump Flywheel Examinations"

4.1 Summary

Ten Year Examinations were performed on No. 11, 13 and 14 reactor coolant pump (RCP) flywheels in accordance with U.S. NRC Reg. Guide 1.14, Article C.

The elements comprising this 10-year examination included PT examinations on the

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6. National Board Number for Unit N/A.
10. Examination Summary (Cont'd)

4.1 (Cont'd)

top surface, bottom surface, and outer perimeter of the flywheel. During the PT examinations, indications were recorded on the inner bores of No. 11 and No. 14 flywheels and reported to PSE&G on CNFs 84-1-012 and 84-1-11. After the spot grinding of a one-square-inch section of each of the flywheels, the indications were resolved as superficial chatter marks and accepted after evaluation by PSE&G. MT indications were observed on the bottom surface of RCP flywheel No. 13 and the top surface of RCP flywheel Nos. 11, 13, 14. These were reported to PSE&G on CNFs 84-1-010, -013, and -014 (includes top surface of No. 13 and No. 14), respectively. The indications were dispositioned by PSE&G, and reexamination by SwRI personnel revealed no recordable indications. No reportable indications were observed during the UT examination of the flywheels.

5.0 Technical Specification 4.6.1.2 (a) "Reactor
Containment Type "A" Test"

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6. National Board Number for Unit N/A.
10. Examination Summary (Cont'd)

5.1 Summary

The second of three containment Type A tests was performed during the 24 hour period ending August 13, 1984. The test instrumentation was setup and monitored by the PSE&G Research Corp. and directed by the Salem ISI Group.

After 24 hours of data collection, the calculated leak rate was 0.033% of containment volume per day. With 95% confidence level and other corrections this converts into 0.0411% of containment volume per day or 0.411L_a. This is within the Technical Specification acceptance criteria of 0.75L_a.

- 6.0 Technical Specification 4.6.1.2 (d) "Containment Type "B" (Penetrations) and "C" (Isolation valves) Leak Rate Testing"

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6. National Board Number for Unit N/A.
10. Examination Summary (Cont'd)

6.1 Summary

PSE&G Research Corporation under the supervision of the Salem ISI Group conducted sixty three (63) Type B tests and one hundred twenty two (122) Type C tests.

At this time the total leakage of all Type B and C tests is 29,524.3 SCCM out of an allowable 129,750 SCCM.

7.0 Technical Specification 4.6.1.2 (e) "Elevation 100' and 130' Personnel Airlocks."

7.1 Summary

The PSE&G Research Corporation under the supervision of the Salem ISI Group performed leak rate tests on the 100' and 130' airlocks.

Prior to replacement of the chevron seals on the airlock handwheel penetrations, the combined leakage was 15,810 SCCM. After

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5. Commercial Service Data 7/1/77.
6. National Board Number for Unit N/A.
10. Examination Summary (Cont'd)

replacement the leakage dropped to 3,815
SCCM which is within acceptable administrative
limits.

8.0 Technical Specification 4.6.1.6.1 "Visual
Examination of Containment Surfaces"

8.1 Summary

The PSE&G Research Corporation along with the
Salem ISI Group conducted an examination of
the containment interior and exterior
surfaces, both prior to and after the Type A
test.

One adverse condition was noted - several old
attachment lugs were starting to rust above
the spring line. This condition was
identified on Deficiency Report No. MT 84-093
and will be corrected during the next
refueling outage.

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AS REQUIRED BY THE PROVISIONS OF THE ASME CODE RULES

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10. Examination Summary (Cont'd)

9.0 Technical Specification 4.7.9.(a) "Visual
Inspection of Hydraulic and Mechanical Snubbers"

9.1 Summary

Catalytic, Inc. QC Department with assistance from the Salem ISI Group conducted visual examinations on all mechanical snubbers.

No discrepancies were found that would effect operability. However, several were found with indications such as minor rust and Attachment ends missing washers. Work orders were issued on these, and deficient conditions were corrected.

The PSE&G ISI Group conducted visual examinations on all hydraulic snubbers. Several minor union leaks were found. These discrepancies were corrected by Catalytic, Inc. under the direction of the PSE&G Nuclear Construction Support Group.

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10. Examination Summary (Cont'd)

10.0 Technical Specification 4.7.9 (c) "Functional
Testing of Selected Hydraulic and Mechanical
Snubbers"

10.1 Summary - Hydraulic Snubbers

Technical specification 4.7.9 requires functional testing on 10% of the snubber total during each plant refueling outage. In addition, all snubbers which failed their previous functional test shall also be functionally tested. Accordingly seventeen (17) snubbers were tested (see below):

- One (1) 200 kip main steam isolation valve (MSIV) hydraulic snubber.
- Sixteen (16) 1000 kip steam generator (s/g) hydraulic snubber.

NOTE: 100% of the 1000 kip snubbers (sixteen, (16 ea.)) failed their previous functional test.

In-place testing was performed by Babcock and Wilcox, using a hydraulic snubber testing

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5. Commercial Service Data 7/1/77.
6. National Board Number for Unit N/A.
10. Examination Summary (Cont'd)

10.1 (Cont'd)

machine developed by Leen Company. All failures were sent to Wyle Laboratories in Huntsville, Alabama for retest and refurbishment. The results of these tests revealed the following:

- One (1) 200 kip (MSIV) snubber found acceptable.
- Fourteen (14) 1000 kip (S/G) snubbers found acceptable.
- Two (2) 1000 kip (S/G) snubbers failed, due to snubbers exceeding the "lockup" velocity requirements.

Both failed snubbers were refurbished and retested satisfactorily at Wyle Laboratories, Huntsville, Alabama.

10.2 Summary - Mechanical Snubbers

Technical Specification 4.7.9 requires functional testing on 10% of the snubber total during each Plant Refueling Outage. In

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AS REQUIRED BY THE PROVISIONS OF THE ASME CODE RULES

1. Owner: Public Service Electric & Gas Co., 80 Park Plaza
Newark, N.J. 07101
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3. Plant Unit 1
4. Owner Certificate of Authorization (if required) N/A.
5. Commercial Service Data 7/1/77.
6. National Board Number for Unit N/A.
10. Examination Summary (Cont'd)

10.2 (Cont'd)

additional, for each type of snubber that does not meet the acceptance criteria an additional 10% of that type of snubber shall be functionally tested. Also per the Pacific Scientific Service Report No. 83-01 (Potential Flaws in Mechanical Snubber Capstan Springs), a visual and functional test shall be performed on specific mechanical snubbers identified by serial number.

The first (10%) sample included fourteen (14) snubbers of which two (2) ((1) PSA 1/4, and (1) PSA 3) failed. Due to this failure an additional 10% were sent to Wyle for testing.

The second (10%) sample, a total of ten (10) snubbers, was tested with one (1) failure (PSA-3), which prompted another 10% to be removed and tested.

At this time it was decided to bring Wyle Laboratories on site with their mobile snubber testing trailer for the balance of the samples.

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5. Commercial Service Data 7/1/77.
6. National Board Number for Unit N/A.
10. Examination Summary (Cont'd)

10.2 (Cont'd)

The third (10%) sample, totaling twenty-eight (28) snubbers, were tested with sixteen (16) failures (3 ea. PSA 1/4, 8 ea. PSA 1, 4 ea. PSA 3 and 1 ea. PSA 10). The large sample was selected due to the excessive failures in the feed water system PSA 1/4 and PSA 1/2. The fourth sample was selected and removed for testing.

The fourth (10%) sample, totaling thirteen (13) snubbers, were tested with one (1) failure (1 ea. PSA 3). The fifth and final sample encompassing the balance of the mechanical snubbers were removed for testing.

The fifth and final sample, totaling twenty-two (22) snubbers, was tested with two (2) failures (1 ea. PSA 1 and PSA 10). Below is a summary of the results of the 100% functional testing of Unit 1's mechanical snubbers:

- Snubbers Tested = 104 (100%)
- Snubbers Failed = 22

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10. Examination Summary (Cont'd)

10.2 (Cont'd)

- Model #'s of Failures: PSA 1/4 = 4
 PSA 1 = 9
 PSA 3 = 7
 PSA 10 = 2

All nonradioactively contaminated failed snubbers were sent to their manufacturer, Pacific Scientific, Anaheim, California for retest, repair and evaluation. In those cases where the snubber was contaminated, the snubber was sent to Wyle Laboratories for retest, repair and evaluation.

As of this date, PSE&G has not received back the evaluation (failure mechanism) on snubbers that were rejected.

PSE&G Engineering also performed a safety evaluation on the failed snubbers, and it was concluded that the attached piping and components were not impaired due to inoperability of the snubbers.

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10. Examination Summary (Cont'd)

10.3 Summary - Pacific Scientific Service Report
83-01

In addition to the required sample of snubbers to be functionally tested, seventeen (17) PSA 1 and 3's were sent to Wyle Laboratories for capstan spring inspections, all of which were found acceptable.

11.0 NRC Circular 76-06 and NRC bulletin 79-17

"Commitment to examine and/or flush stainless steel lines containing stagnant borated water"

11.1 Summary

As part of the ISI program, SwRI performed ultrasonic examinations on eight (8) piping welds covered by this circular.

Quarterly chemistry samples were taken by the PSE&G Chemistry Department and results transmitted to the Salem ISI Group as required by Maintenance Procedure M17G.

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10. Examination Summary (Cont'd)

11.1 (Cont'd)

There were no adverse findings in the examinations or tests conducted relative to the reporting requirement of this circular.

12.0 NuReg 0578 - TMI Lessons Learned -

"Performing Service Pressure Leak Exams, measuring leakage outside Containment, and take Corrective Actions necessary to reduce leakage as low as possible on systems likely to contain Radioactive liquids in the event of an incident"

12.1 Summary

The Salem ISI Group along with members of the PSE&G Maintenance Department performed Service Pressure Leak Exams on the Safety Injection, Chemical and Volume Control, Residual Heat Removal and Containment Spray Systems.

In addition, PSE&G Research Corp. under the direction of the Salem ISI Group conducted the Waste Gas System Leak Rate Test in accordance with Maintenance Procedure M11C.

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10. Examination Summary (Cont'd)

12.1 (Cont'd)

There were no adverse findings in the
examinations or tests conducted relative to
this bulletin.

13.0 NRC Bulletin 79-13 Steam Generator Feedwater Nozzle
Cracking, Follow-up

13.1 Southwest Research Institute (SwRI) under the
direction of the Salem ISI Group performed
ultrasonic examinations on all four (4) steam
generator feedwater nozzle to piping welds.

The UT results were evaluated for any cracking
or any other defective conditions. The
results of these examinations were
satisfactory.

14.0 NRC Bulletin 82-02 "Degradation of Threaded
Fasteners in the Reactor Coolant Pressure Boundary
of PWR Plants"

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10. Examination Summary (Cont'd)

14.1 Summary

Due to this bulletin, all steam generator primary manway bolts on No. 12 and No. 14 S/G were magnetic partical (MT) surface examined by Magnaflux Quality Services, and visually examined by the Salem ISI Group.

Although no bolts were rejected, one was selected for analysis, due to some indications noted on the visual exam - possibly caused by the forming process. It should be noted that this bolt had no indications when MT examined.

In addition, the reactor coolant pump main flange bolts were visually examined in place by the PSE&G Maintenance Department and the ISI Group. No discrepancies were noted.

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We certify that the statements made up in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

Date 1/11/85 Signed PSE&G - Owner By Louis H. Lake

Certificate of Authorization No. (if applicable) N/A

Expiration Date N/A

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Province of New Jersey and employed by Lumberman's Mutual Casualty Company, Long Grove, Illinois, have inspected the components described in this Owner's Data Report during the period 2/24/84 to 10/23/84 and state that to the best of my knowledge and belief the Owner has performed examinations and taken corrective measures described in this Owners' Data Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 1-17-85

James E. Cosh
Inspector's Signature

Commissions N.J. 373 "I"
National Board, State,
Province and No.