

BEAVER VALLEY POWER STATION  
UNIT 2 SIMULATOR  
FOUR YEAR CERTIFICATION REPORT  
1992 - 1995

This four year certification report satisfies the reporting requirements identified in 10 CFR 55.45(b)(5)(ii) and (b)(5)(vi).

Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

TABLE OF CONTENTS

| <u>TOPIC</u>                                   | <u>PAGE</u> |
|--|-------------|
| References and Requirements                    | 1           |
| Summary of Results, 1992 - 1995                | 2           |
| SQT Corrected Test Deficiencies, 1992 - 1995   | 3           |
| SQT Uncorrected Test Deficiencies, 1992 - 1995 | 7           |
| Tests and Schedule for 1996 - 1999             | 8           |
| Test Schedule for 1996 - 1999                  | 9           |

Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

References and Requirements

References:

1. Title 10, Code of Federal Regulations, Part 55, "Operators' Licenses," Subpart E, Section 45.
2. U.S. NRC Regulatory Guide 1.149, 1987, "Nuclear Power Plant Simulation Facilities for use in Operator License Examinations."
3. ANSI 3.5, 1985, "Nuclear Power Plant Simulators for use in Operator Training."

Reporting Requirements:

The requirements of this report as outlined in 10 CFR 55 are:

1. Identification of any uncorrected performance test failures and a schedule for corrections of such performance failures if any. Subpart E, Section 55.45(b)(5)(ii). (Refer to page 7.)
2. A description of performance testing completed for the simulation facility. Subpart E, Section 55.45(b)(5)(vi). (Refer to pages 2 through 7.)
3. A description of the performance tests, if different, to be conducted on the simulation facility during the subsequent four year period. Subpart E, Section 55.45(b)(5)(vi). (Refer to page 8.)
4. A schedule for the conduct of approximately 25 percent of the performance tests per year for the subsequent four years. Subpart E, Section 55.45(b)(5)(vi). (Refer to pages 9 through 16.)

Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

Summary of Results 1992 - 1995

All commitments from the original certification report have been completed. The testing for the first four years following initial certification, as submitted in the original Simulator Certification Report, is complete. A total of 276 tests were performed and evaluated. The following tables summarize the test results:

| <b>Tests Completed</b>           | 1992      | 1993      | 1994      | 1995      |
|----------------------------------|-----------|-----------|-----------|-----------|
| Simulator Real Time              | 1         | 1         | 1         | 1         |
| Steady State, Drift, Normal Ops. | 9         | 9         | 10        | 10        |
| Transient Test (Appendix B)      | 10        | 10        | 10        | 10        |
| Transient Test (Plant Data)      | 0         | 2         | 2         | 1         |
| Malfunction Tests                | <u>47</u> | <u>48</u> | <u>47</u> | <u>47</u> |
| <b>Total</b>                     | 67        | 70        | 70        | 69        |

| <b>Action List</b>             | 1992 | 1993 | 1994 | 1995 |
|--------------------------------|------|------|------|------|
| Trouble Reports Written (TR)   | 19   | 20   | 19   | 17   |
| Trouble Reports Cleared (TR)   | 19   | 20   | 17   | 10   |
| Uncorrected Test Deficiencies: | 0    | 0    | 2    | 7    |

The corrected test deficiencies for 1992 - 1995 are listed on pages 3 through 6.

The uncorrected test deficiencies for 1992 - 1995 are listed on page 7

Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

Simulator Qualification Test (SQT)  
Corrected Test Deficiencies

| SQT TEST<br>NUMBER | TEST DESCRIPTION   | TROUBLE<br>REPORT | DATE<br>COMPLETE |
|--------------------|--|-------------------|------------------|
| <b>1992</b>        |  |                   |                  |
| SQT-14.1.2.2       | DUTY CYCLE TEST  | TR-5266           | 10/30/93         |
|                    |  | TR-5268           | 10/30/93         |
|                    |  | TR-5269           | 10/01/93         |
| SQT-14.1.5.2.2.01  | STEADY STATE DRIFT TEST - FULL POWER                             | TR-5272           | 11/21/92         |
| SQT-14.1.5.2.2.02  | STEADY STATE DRIFT TEST - 75% POWER                              | TR5272            | 11/21/92         |
| SQT-14.1.5.4.02.01 | AUXILIARY STEAM HEADER LEAK TEST                                 | TR-2985           | 12/18/93         |
|                    |  | TR-4058           | 11/01/93         |
| SQT-14.1.5.4.17.03 | PLANT COMPUTER SYSTEM FAILURE TEST                               | TR-4697           | 10/02/93         |
|                    |  | TR-5019           | 11/12/92         |
|                    |  | TR-5115           | 10/24/92         |
|                    |  | TR-5284           | 11/28/92         |
|                    |  | TR-5289           | 10/26/93         |
| SQT-14.1.5.4.22.05 | RCP LOCKED ROTOR TEST  | TR-2498           | 09/18/93         |
| SQT-14.1.5.4.23.11 | VARIABLE PRESSURIZER NONCONDENSABLE<br>PARTIAL PRESSURE          | TR-5112           | 11/17/93         |
| SQT-14.1.5.4.29.02 | TRANSFORMER FAILURE TEST   | TR-5117           | 10/09/93         |
| SQT-14.1.5.4.33.02 | FILTER ADVANCE FAILURE TEST                                      | TR-5091           | 10/11/93         |
|                    |  | TR-5092           | 10/11/93         |
| SQT-14.1.5.8.3.09  | TURBINE TRIP WITHOUT DIRECT REACTOR<br>TRIP TEST                 | TR-4745           | 04/03/93         |
| SQT-14.1.5.8.3.11  | DESIGN BASIS ACCIDENT LOSS OF COOLANT<br>ACCIDENT TRANSIENT TEST | TR-5304           | 09/18/93         |
| SQT-14.1.5.8.3.12  | DESIGN BASIS ACCIDENT STEAM LINE<br>RUPTURE TEST                 | TR-5147           | 04/01/93         |

Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

Simulator Qualification Test (SQT)  
Corrected Test Deficiencies

| SQT TEST<br>NUMBER | TEST DESCRIPTION   | TROUBLE<br>REPORT  | DATE<br>COMPLETE     |
|--------------------|--|--------------------|----------------------|
| <b>1993</b>        |  |                    |                      |
| SQT-14.1.5.2.1.05  | PLANT SHUTDOWN FROM 40 PERCENT POWER<br>TO HOT STANDBY                   | TR-5404            | 09/23/93             |
| SQT-14.1.5.3.07    | 100 PERCENT, PLANT TRIP/RECOVERY TEST                                    | TR-5472<br>TR-5473 | 12/12/93<br>01/05/95 |
| SQT-14.1.5.4.03.01 | AIR HEADER LEAK TEST   | TR-5402            | 09/18/93             |
| SQT-14.1.5.4.08.05 | DRPI FAILURE TEST  | TR-5403            | 09/18/93             |
| SQT-14.1.5.4.12.04 | ERRATIC THROTTLE VALVE CONTROL TEST                                      | TR-5378            | 08/14/93             |
| SQT-14.1.5.4.17.04 | CONTAIMENT AIR INLEAKAGE TEST  | TR-5380            | 08/14/93             |
| SQT-14.1.5.4.23.04 | STEAM GENERATOR TUBE LEAK TEST   | TR-5412            | 07/05/95             |
| SQT-14.1.5.4.32.01 | GASEOUS WASTE SURGE TANK EFFLUENT<br>LEAK TEST                           | TR-5415            | 09/23/94             |
| SQT-14.1.5.4.33.03 | LOSS OF FLOW CONTROL TEST  | TR-5414            | 12/18/93             |
| SQT-14.1.5.5.1.03  | OCB-94 TRIPS   | TR-5413            | 10/15/93             |
| SQT-14.1.5.5.3.03  | 2SIS*MOV867B SPURIOUSLY CLOSES   | TR-5422            | 12/11/93             |
| SQT-14.1.5.5.4.02  | 2SAS*AOV105 SPURIOUSLY OPENS   | TR-5422            | 12/11/93             |
| SQT-14.1.5.5.5.02  | 2GNS*SOV853F SPURIOUSLY OPENS  | TR-5422            | 12/11/93             |
| SQT-14.1.5.6.06    | LOCA OUTSIDE CONTAINMENT   | TR-5474            | 09/23/94             |
| SQT-14.1.5.8.3.05  | TRIP OF ALL FEEDWATER PUMPS TEST   | TR-5304<br>TR-5348 | 09/18/93<br>07/10/93 |
| SQT-14.1.5.8.3.07  | COMPLETE LOSS OF REACTOR COOLANT<br>FLOW TEST                            | TR-5421            | 10/21/93             |
| SQT-14.1.5.8.3.08  | PARTIAL LOSS OF REACTOR COOLANT FLOW<br>TEST                             | TR-5421            | 10/21/93             |
| SQT-14.1.5.8.3.11  | DESIGN BASIS ACCIDENT LOSS OF COOLANT<br>ACCIDENT TRANSIENT TEST         | TR-5306<br>TR-5457 | 09/26/94<br>09/26/94 |
| SQT-14.1.5.8.3.13  | STUCK OPEN PRESSURIZER SAFETY WITHOUT<br>HIGH HEAD SAFETY INJECTION TEST | TR-5432<br>TR-5477 | 11/27/93<br>07/07/95 |

Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

Simulator Qualification Test (SQT)  
Corrected Test Deficiencies

| SQT TEST<br>NUMBER | TEST DESCRIPTION   | TROUBLE<br>REPORT  | DATE<br>COMPLETE     |
|--------------------|--|--------------------|----------------------|
| <b>1994</b>        |  |                    |                      |
| SQT-14.1.5.2.1.03  | PLANT STARTUP FROM ZERO POWER TO FULL<br>POWER                           | TR-5572            | 02/09/95             |
| SQT-14.1.5.2.6.10  | OST 2.6.2 REACTOR COOLANT SYSTEM WATER<br>INVENTORY BALANCE              | TR-5555            | 11/30/94             |
| SQT-14.1.5.2.6.13  | OST 2.6.7 ACCIDENT MONITORING<br>INSTRUMENTATION CHANNEL CHECKS          | TR-5549            | 01/05/95             |
| SQT-14.1.5.2.6.30  | OST 2.36.4 EMERGENCY DIESEL GENERATOR<br>2EGS*EG2-2 AUTOMATIC TEST       | TR-5566            | 08/23/95             |
| SQT-14.1.5.4.11.03 | DIESEL GENERATOR ERRATIC VOLTAGE<br>REGULATION TEST                      | TR-5547<br>TR-5548 | 07/07/95<br>01/03/95 |
| SQT-14.1.5.4.16.01 | LOSS OF 4160-VOLT BUS TEST   | TR-5563            | 07/07/95             |
| SQT-14.1.5.4.19.08 | POWER RANGE BLOWN FUSE TEST  | TR-5545            | 07/07/95             |
| SQT-14.1.5.4.28.05 | SIS VALVE SEAT LEAKAGE TEST  | TR-5561            | 07/07/95             |
| SQT-14.1.5.4.9.2.1 | CHARGING SYSTEM LEAK TEST  | TR-5562            | 07/07/95             |
| SQT-14.1.5.5.2.04  | PRESSURIZER HEATER SHORT TEST  | TR-5552            | 07/07/95             |
| SQT-14.1.5.5.4.03  | 2CHS*AOV200A SPURIOUSLY CLOSES TEST                                      | TR-5546            | 01/03/95             |
| SQT-14.1.5.5.6.03  | 2FWS*HYV157C SPURIOUSLY CLOSES   | TR-5553            | 01/03/95             |
| SQT-14.1.5.8.3.05  | TRIP OF ALL FEEDWATER PUMPS TEST   | TR-5579            | 07/10/95             |
| SQT-14.1.5.8.3.06  | MAIN STEAM ISOLATION VALVES CLOSURE<br>TEST                              | TR-5579            | 07/10/95             |
| SQT-14.1.5.8.3.11  | DESIGN BASIS ACCIDENT LOSS OF COOLANT<br>ACCIDENT TRANSIENT TEST         | TR-5567            | 11/08/94             |
| SQT-14.1.5.8.3.12  | DESIGN BASIS ACCIDENT STEAM LINE<br>RUPTURE TEST                         | TR-5577            | 06/07/95             |
| SQT-14.1.5.8.3.12  | DESIGN BASIS ACCIDENT STEAM LINE<br>RUPTURE TEST                         | TR-5578            | 08/15/95             |
| SQT-14.1.5.8.3.13  | STUCK OPEN PRESSURIZER SAFETY WITHOUT<br>HIGH HEAD SAFETY INJECTION TEST | TR-5579            | 07/10/95             |

Beaver Valley Power Station Unit 2  
 Four Year Simulator Certification Report  
 1992 - 1995

Simulator Qualification Test (SQT)  
 Corrected Test Deficiencies

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|--------------------|--|--------------------|----------------------|
| <b>1995</b>        |  |                    |                      |
| SQT-14.1.5.2.6.04  | OST 2.2.2 NUCLEAR INTERMEDIATE RANGE<br>CHANNEL FUNCTIONAL TEST  | TR-5592            | 08/15/95             |
| SQT-14.1.5.2.6.05  | OST 2.2.3 NUCLEAR SOURCE RANGE CHANNEL<br>FUNCTIONAL TEST        | TR-5593            | 08/15/95             |
| SQT-14.1.5.2.6.29  | OST 2.36.1 EMERGENCY DIESEL GENERATOR<br>2EGS*EG2-1 MONTHLY TEST | TR-5595            | 08/23/95             |
| SQT-14.1.5.4.08.03 | DROPPED ROD(S) TEST  | TR-5597<br>TR-5620 | 08/15/95<br>08/22/95 |
| SQT-14.1.5.4.12.02 | ERRATIC GOVERNOR VALVE CONTROL TEST                              | TR-5599            | 08/22/95             |
| SQT-14.1.5.4.16.02 | LOSS OF 480-VOLT BUS TEST  | TR-5586            | 08/15/95             |
| SQT-14.1.5.4.24.04 | RHS SYSTEM LEAK TEST   | TR-5610            | 08/16/95             |
| SQT-14.1.5.4.30.03 | CLOGGED SEAL WATER STRAINER TEST                                 | TR-5596            | 08/15/95             |
| SQT-14.1.5.5.7.03  | 2FWE*HCV100A LOSS OF ACTUATOR POWER                              | TR-5608            | 08/15/95             |



Beaver Valley Power Station Unit 2  
 Four Year Simulator Certification Report  
 1992 - 1995

Simulator Qualification Test (SQT)  
 Uncorrected Test Deficiencies

| SQT TEST NUMBER    | TEST DEFICIENCY   | TROUBLE REPORT | SCHEDULED DATE |
|--------------------|---|----------------|----------------|
| 1994               |   |                |                |
| SQT-14.1.5.2.1.03  | MAIN GENERATOR HOT GAS DETECT IN ALARM AT LOW POWER         | TR-5573        | 12/31/96       |
| SQT-14.1.5.8.3.10  | 2ND POINT FEEDWATER HTR ISOLATION OCCURED ON POWER INCREASE | TR-5576        | 12/31/96       |
| 1995               |   |                |                |
| SQT-14.1.5.2.1.01  | MUG SEAL OIL DELT. P TOO HIGH DURING PLANT H/U TEST         | TR-5617        | 12/31/96       |
| SQT-14.1.5.2.1.01  | RVLIS STATIC HEAD TOO HIGH IN MODE 5 LEVEL IN PZR           | TR-5619        | 12/31/96       |
| SQT-14.1.5.2.6.16  | OST 2.7.12 BLENDER OPERATIONS                               | TR-5594        | 12/31/95       |
| SQT-14.1.5.4.05.03 | CCP MAKEUP TO NEUTRON SHIELD TANK IS TOO SLOW               | TR-5612        | 12/31/97       |
| SQT-14.1.5.4.23.03 | RAD MONITORS 2RMR*RQ206,207 DID NOT ALARM ON DBA LOCA       | TR-5602        | 12/31/96       |
| SQT-14.1.5.4.33.01 | DRMS CRT MESSAGE DID NOT OCCUR FOR MALF RMS3 OPTION 1       | TR-5607        | 12/31/97       |
| SQT-14.1.5.8.3.10  | 2ND POINT FEEDWATER HTR ISOLATION OCCURED ON POWER INCREASE | TR-5576        | 12/31/96       |

Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

Tests and Schedule for 1996 - 1999

The following Normal Operations Tests have been removed from the testing schedule:

- SQT-14.1.5.2.6.16 OST 2.7.12 BLENDER OPERATIONS
- SQT-14.1.5.2.6.21 OST 2.11.11 ACCUMULATOR ISOLATION VALVES AUTO-OPEN TEST (P-11)
- SQT-14.1.5.2.6.23 OST 2.24.1 AUXILIARY FEEDWATER SYSTEM VALVE EXERCISE
- SQT-14.1.5.2.6.24 OST 2.24.6 AUX FEEDWATER SYSTEM CHECK VALVE EXERCISE AND FLOW VERIFICATION
- SQT-14.1.5.2.6.30 OST 2.36.4 EMERGENCY DIESEL GENERATOR 2EGS\*EG2-2 AUTOMATIC TEST
- SQT-14.1.5.2.6.31 OST 2.36.7 OFF-SITE TO ON-SITE POWER DIST SYS BREAKER ALIGNMENT VERIFICATION
- SQT-14.1.5.2.6.32 OST 2.36.8 AC POWER SOURCE WEEKLY BREAKER ALIGNMENT VERIFICATION
- SQT-14.1.5.2.6.43 OST 2.49.1 SHUTDOWN MARGIN CALCULATION (PLANT CRITICAL)

Each test was evaluated, and only the Normal Operations Tests that provide enhancements to the simulator were retained. The tests that were removed from the testing schedule were either redundant to other testing methods, or the critical parameters for the test were read outside the control room and relayed back to the control board operator.

The following Transient Tests have been removed from the testing schedule:

- SQT-14.1.5.3.03 RHS PUMP VORTEXING TEST
- SQT-14.1.5.3.04 RATED LOAD/UNLOAD TRANSIENT TEST
- SQT-14.1.5.3.05 STEP LOAD TRANSIENT TEST
- SQT-14.1.5.3.06 LARGE LOAD REJECTION TRANSIENT

The tests that were removed from the testing schedule were either redundant to other testing methods, or could not be evaluated with existing data due to plant design changes since initial test performance. One Transient Test was changed to a Normal Operations Test to better support the test evaluation and is listed below:

Old Transient Test Title

- SQT-14.1.5.3.07 100 PERCENT, PLANT TRIP/RECOVERY TEST

New Normal Operations Test Title

- SQT-14.1.5.2.1.07 100 PERCENT, PLANT TRIP/RECOVERY TEST

The test procedure demonstrating LOCA outside containment capability has been incorporated into another test procedure as indicated below:

Old Test Title

- SQT-14.1.5.6.06 LOCA OUTSIDE CONTAINMENT

New Combined Test Title

- SQT-14.1.5.4.23.03 LARGE BREAK LOCA TEST

Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

| SQT TEST NUMBER                                       | TEST DESCRIPTION  | YEAR TO BE TESTED |      |      |      |
|---|---|-------------------|------|------|------|
|   |   | 1996              | 1997 | 1998 | 1999 |
| <b>Simulator Real Time Test</b>                       |   |                   |      |      |      |
| SQT-14.1.2.2  | DUTY CYCLE TEST   | X                 | X    | X    | X    |
| <b>Steady State, Drift and Normal Operations Test</b> |   |                   |      |      |      |
| SQT-14.1.5.2.2.01                                     | STEADY STATE DRIFT TEST - FULL POWER                          | X                 | X    | X    | X    |
| SQT-14.1.5.2.2.02                                     | STEADY STATE DRIFT TEST - INTERIM POWER                       | X                 | X    | X    | X    |
| SQT-14.1.5.2.2.03                                     | STEADY STATE DRIFT TEST - LOW POWER                           | X                 | X    | X    | X    |
| SQT-14.1.5.2.1.01                                     | REACTOR PLANT HEATUP FROM COLD SHUTDOWN TO HOT STANDBY        |                   |      | X    |      |
| SQT-14.1.5.2.1.02                                     | REACTOR STARTUP   |                   |      |      | X    |
| SQT-14.1.5.2.1.03                                     | PLANT STARTUP FROM ZERO POWER TO FULL POWER                   |                   |      |      | X    |
| SQT-14.1.5.2.1.04                                     | LOAD FOLLOWING FROM FULL POWER TO 40 PERCENT                  | X                 |      |      |      |
| SQT-14.1.5.2.1.05                                     | PLANT SHUTDOWN FROM 40 PERCENT POWER TO HOT STANDBY           | X                 |      |      |      |
| SQT-14.1.5.2.1.06                                     | PLANT COOLDOWN FROM HOT STANDBY TO COLD SHUTDOWN              |                   | X    |      |      |
| SQT-14.1.5.2.1.07                                     | 100 PERCENT, PLANT TRIP/RECOVERY TEST                         |                   | X    |      |      |
| SQT-14.1.5.2.6.01                                     | OST 2.1.1 CONTROL ROD ASSEMBLY PARTIAL MOVEMENT TEST          |                   | X    |      |      |
| SQT-14.1.5.2.6.03                                     | OST 2.2.1 NUCLEAR POWER RANGE CHANNEL FUNCTIONAL TEST         |                   |      | X    |      |
| SQT-14.1.5.2.6.04                                     | OST 2.2.2 NUCLEAR INTERMEDIATE RANGE CHANNEL FUNCTIONAL TEST  |                   |      |      | X    |
| SQT-14.1.5.2.6.05                                     | OST 2.2.3 NUCLEAR SOURCE RANGE CHANNEL FUNCTIONAL TEST        |                   |      |      | X    |
| SQT-14.1.5.2.6.10                                     | OST 2.6.2 REACTOR COOLANT SYSTEM WATER INVENTORY BALANCE      |                   |      | X    |      |
| SQT-14.1.5.2.6.11                                     | OST 2.6.4 MEASUREMENT OF CONTROLLED LEAKAGE                   | X                 |      |      |      |
| SQT-14.1.5.2.6.12                                     | OST 2.6.6 PORV ISOLATION VALVE TEST AND POSITION CHECK        |                   | X    |      |      |
| SQT-14.1.5.2.6.13                                     | OST 2.6.7 ACCIDENT MONITORING INSTRUMENTATION CHANNEL CHECKS  |                   |      | X    |      |
| SQT-14.1.5.2.6.29                                     | OST 2.36.1 EMERGENCY DIESEL GENERATOR 2EGS*EG2-1 MONTHLY TEST |                   |      |      | X    |
| SQT-14.1.5.2.6.35                                     | OST 2.43.9 GASEOUS EFFLUENT MONITORS CHANNEL FUNCTIONAL TEST  |                   | X    |      |      |
| SQT-14.1.5.2.6.37                                     | OST 2.44A.2 CONTROL ROOM VENTILATION SYSTEM TEST - TRAIN A    | X                 |      |      |      |
| SQT-14.1.5.2.6.45                                     | OST 2.24.2 MOTOR-DRIVEN AUILIARY FEED PUMP 2FWE*P23A TEST     |                   |      |      | X    |

Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

| SQT TEST NUMBER          | TEST DESCRIPTION  | YEAR TO BE TESTED |      |      |      |
|--------------------------|---|-------------------|------|------|------|
|                          |   | 1996              | 1997 | 1998 | 1999 |
| <b>Transient Tests</b>   |   |                   |      |      |      |
| SQT-14.1.5.8.3.04        | REACTOR TRIP TEST   | X                 | X    | X    | X    |
| SQT-14.1.5.8.3.05        | TRIP OF ALL FEEDWATER PUMPS TEST                                      | X                 | X    | X    | X    |
| SQT-14.1.5.8.3.06        | MAIN STEAM ISOLATION VALVES CLOSURE TEST                              | X                 | X    | X    | X    |
| SQT-14.1.5.8.3.07        | COMPLETE LOSS OF REACTOR COOLANT FLOW TEST                            | X                 | X    | X    | X    |
| SQT-14.1.5.8.3.08        | PARTIAL LOSS OF REACTOR COOLANT FLOW TEST                             | X                 | X    | X    | X    |
| SQT-14.1.5.8.3.09        | TURBINE TRIP WITHOUT DIRECT REACTOR TRIP TEST                         | X                 | X    | X    | X    |
| SQT-14.1.5.8.3.10        | MAIMUM RATE POWER RAMP TEST   | X                 | X    | X    | X    |
| SQT-14.1.5.8.3.11        | DESIGN BASIS ACCIDENT LOSS OF COOLANT ACCIDENT TRANSIENT TEST         | X                 | X    | X    | X    |
| SQT-14.1.5.8.3.12        | DESIGN BASIS ACCIDENT STEAM LINE RUPTURE TEST                         | X                 | X    | X    | X    |
| SQT-14.1.5.8.3.13        | STUCK OPEN PRESSURIZER SAFETY WITHOUT HIGH HEAD SAFETY INJECTION TEST | X                 | X    | X    | X    |
| <b>Malfunction Tests</b> |   |                   |      |      |      |
| SQT-14.1.5.4.01.01       | AFW PUMP RECIRCULATION VALVE FAILURE TEST                             | X                 |      |      |      |
| SQT-14.1.5.4.01.02       | AUILIARY FEEDWATER SYSTEM LEAK TEST                                   |                   | X    |      |      |
| SQT-14.1.5.4.01.03       | TERRY TURBINE GOVERNOR FAILURE TEST                                   |                   |      | X    |      |
| SQT-14.1.5.4.01.04       | STEAM LEAK ON TERRY TURBINE SUPPLY LINE TEST                          |                   |      |      | X    |
| SQT-14.1.5.4.02.01       | AUILIARY STEAM HEADER LEAK TEST                                       | X                 |      |      |      |
| SQT-14.1.5.4.03.01       | AIR HEADER LEAK TEST  |                   | X    |      |      |
| SQT-14.1.5.4.03.03       | CLOGGED INSTRUMENT AIR FILTER TEST                                    |                   |      | X    |      |
| SQT-14.1.5.4.04.01       | CCS SYSTEM LEAK TEST  |                   |      |      | X    |
| SQT-14.1.5.4.05.01       | CCP SYSTEM LEAK TEST  |                   | X    |      |      |
| SQT-14.1.5.4.05.02       | CCP HEAT ECHANGER TUBE LEAK TEST                                      |                   |      | X    |      |
| SQT-14.1.5.4.05.03       | NEUTRON SHIELD TANK LEAK TEST   |                   |      |      | X    |
| SQT-14.1.5.4.05.04       | CCP VALVE SEAT LEAKAGE TEST   | X                 |      |      |      |
| SQT-14.1.5.4.06.01       | CONDENSATE PUMP SUCTION STRAINER CLOGGED TEST                         | X                 |      |      |      |
| SQT-14.1.5.4.06.02       | CONDENSATE/FEEDWATER SYSTEM LEAK TEST                                 |                   |      | X    |      |
| SQT-14.1.5.4.06.03       | CONDENSER TUBE LEAK TEST  |                   | X    |      |      |
| SQT-14.1.5.4.06.04       | AIR EJECTOR FAILURE TEST  |                   |      |      | X    |
| SQT-14.1.5.4.06.05       | ERRATIC MAIN AND BYPASS FWRV OPERATION TEST                           | X                 |      |      |      |
| SQT-14.1.5.4.06.06       | CFW VALVE SEAT LEAKAGE TEST   |                   | X    |      |      |



Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

| SQT TEST NUMBER          | TEST DESCRIPTION                                  | YEAR TO BE TESTED |      |      |      |
|--------------------------|---|-------------------|------|------|------|
|                          |   | 1996              | 1997 | 1998 | 1999 |
| <b>Malfunction Tests</b> |   |                   |      |      |      |
| SQT-14.1.5.4.07.01       | RECIRCULATION SPRAY SYSTEM LEAK TEST              |                   |      | X    |      |
| SQT-14.1.5.4.07.02       | RECIRCULATION SPRAY HEAT EXCHANGER TUBE LEAK TEST |                   |      |      | X    |
| SQT-14.1.5.4.07.03       | CSS VALVE SEAT LEAKAGE TEST                       | X                 |      |      |      |
| SQT-14.1.5.4.08.01       | FAILURE OF RODS TO MOVE TEST                      |                   | X    |      |      |
| SQT-14.1.5.4.08.02       | UNCOUPLED ROD TEST                                |                   |      | X    |      |
| SQT-14.1.5.4.08.03       | DROPPED ROD(S) TEST                               |                   |      |      | X    |
| SQT-14.1.5.4.08.04       | UNCONTROLLED ROD MOTION TEST                      | X                 |      |      |      |
| SQT-14.1.5.4.08.05       | DRPI FAILURE TEST                                 |                   | X    |      |      |
| SQT-14.1.5.4.08.06       | ROD EJECTION TEST                                 |                   |      | X    |      |
| SQT-14.1.5.4.08.07       | ROD POSITION STEP COUNTER FAILURE TEST            |                   |      |      | X    |
| SQT-14.1.5.4.08.08       | STUCK ROD(S) TEST                                 | X                 |      |      |      |
| SQT-14.1.5.4.08.09       | POWER CABINET FAILURE TEST                        |                   | X    |      |      |
| SQT-14.1.5.4.08.10       | LOGIC CABINET FAILURE TEST                        |                   |      | X    |      |
| SQT-14.1.5.4.09.01       | LETDOWN RELIEF VALVE FAILURE TEST                 |                   |      |      | X    |
| SQT-14.1.5.4.09.03       | PLUGGED CVCS FILTERS TEST                         |                   |      | X    |      |
| SQT-14.1.5.4.09.04       | VOLUME CONTROL TANK LEAK TEST                     |                   |      |      | X    |
| SQT-14.1.5.4.09.05       | LOSS OF PRIMARY GRADE WATER TEST                  | X                 |      |      |      |
| SQT-14.1.5.4.09.06       | CVCS HEAT EXCHANGER TUBE LEAKS TEST               |                   | X    |      |      |
| SQT-14.1.5.4.09.07       | CHARGING PUMP LUBE OIL COOLER CLOGGING TEST       |                   |      | X    |      |
| SQT-14.1.5.4.09.08       | CHS VALVE SEAT LEAKAGE TEST                       |                   |      |      | X    |
| SQT-14.1.5.4.10.01       | CIRCULATING WATER SYSTEM LEAK TEST                | X                 |      |      |      |
| SQT-14.1.5.4.11.01       | DIESEL GENERATOR TRIP TEST                        |                   | X    |      |      |
| SQT-14.1.5.4.11.02       | DIESEL GENERATOR SEQUENCER FAILURE TEST           | X                 |      |      |      |
| SQT-14.1.5.4.11.03       | DIESEL GENERATOR ERRATIC VOLTAGE REGULATION TEST  |                   |      | X    |      |
| SQT-14.1.5.4.11.04       | DIESEL GENERATOR ERRATIC SPEED CONTROL TEST       |                   |      |      | X    |
| SQT-14.1.5.4.12.01       | GOVERNOR VALVE FAILURE TEST                       |                   | X    |      |      |
| SQT-14.1.5.4.12.02       | ERRATIC GOVERNOR VALVE CONTROL TEST               |                   |      |      | X    |
| SQT-14.1.5.4.12.03       | THROTTLE VALVE FAILURE TEST                       | X                 |      |      |      |
| SQT-14.1.5.4.12.04       | ERRATIC THROTTLE VALVE CONTROL TEST               |                   | X    |      |      |
| SQT-14.1.5.4.12.05       | REHEAT/INTERCEPT STOP VALVE FAILURE TEST          |                   |      | X    |      |
| SQT-14.1.5.4.12.06       | VALVE POSITION LIMITER FAILURE TEST               |                   |      |      | X    |
| SQT-14.1.5.4.12.07       | INADVERTENT TURBINE TRIP TEST                     | X                 |      |      |      |
| SQT-14.1.5.4.12.08       | TURBINE TRIP FAILURE TEST                         |                   | X    |      |      |
| SQT-14.1.5.4.12.09       | TURBINE RUNBACK FAILURE TEST                      |                   |      | X    |      |
| SQT-14.1.5.4.12.10       | EHC PUMP UNLOADER VALVE FAILURE TEST              |                   |      |      | X    |
| SQT-14.1.5.4.13.01       | FPW VALVES OUT OF POSITION TEST                   | X                 |      |      |      |

Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

| SQT TEST NUMBER          | TEST DESCRIPTION   | YEAR TO BE TESTED |      |      |      |
|--------------------------|--|-------------------|------|------|------|
|                          |  | 1996              | 1997 | 1998 | 1999 |
| <b>Malfunction Tests</b> |  |                   |      |      |      |
| SQT-14.1.5.4.14.01       | FIRST POINT FEEDWATER HEATER TUBE LEAK TEST                |                   | X    |      |      |
| SQT-14.1.5.4.14.02       | SECOND POINT FEEDWATER HEATER TUBE LEAK TEST               |                   |      | X    |      |
| SQT-14.1.5.4.15.01       | MAIN GENERATOR TRIP TEST                                   |                   |      |      | X    |
| SQT-14.1.5.4.15.02       | AUTOMATIC VOLTAGE REGULATOR FAILURE TEST                   | X                 |      |      |      |
| SQT-14.1.5.4.15.03       | GENERATOR HYDROGEN COOLER TUBE LEAK TEST                   |                   | X    |      |      |
| SQT-14.1.5.4.16.01       | LOSS OF 4160-VOLT BUS TEST                                 |                   |      | X    |      |
| SQT-14.1.5.4.16.02       | LOSS OF 480-VOLT BUS TEST                                  |                   |      |      | X    |
| SQT-14.1.5.4.16.03       | LOSS OF INVERTER/VITAL BUS/ESSENTIAL BUS TEST              | X                 |      |      |      |
| SQT-14.1.5.4.16.04       | LOSS OF DC BUS OR SWITCHBOARD TEST                         |                   | X    |      |      |
| SQT-14.1.5.4.17.01       | CONTAINMENT PENETRATION ELECTRICAL PROTECTION BREAKER TRIP |                   |      | X    |      |
| SQT-14.1.5.4.17.02       | LOSS OF ANNUNCIATOR CONTROL POWER TEST                     |                   |      |      | X    |
| SQT-14.1.5.4.17.03       | PLANT COMPUTER SYSTEM FAILURE TEST                         | X                 |      |      |      |
| SQT-14.1.5.4.17.04       | CONTAINMENT AIR INLEAKAGE TEST                             |                   | X    |      |      |
| SQT-14.1.5.4.17.05       | REACTOR DRAINS AND VENTS SYSTEM LEAK TEST                  |                   |      | X    |      |
| SQT-14.1.5.4.18.01       | STEAM LEAK UPSTREAM OF MSIV INSIDE CONTAINMENT TEST        |                   | X    |      |      |
| SQT-14.1.5.4.18.02       | STEAM LEAK UPSTREAM OF MSIV OUTSIDE CONTAINMENT TEST       |                   |      | X    |      |
| SQT-14.1.5.4.18.03       | MAIN STEAM HEADER LEAK TEST                                |                   |      |      | X    |
| SQT-14.1.5.4.18.04       | STEAM LEAK ON RHR VALVE LINE TEST                          | X                 |      |      |      |
| SQT-14.1.5.4.18.05       | STEAM GENERATOR SAFETY VALVE FAILURE TEST                  |                   | X    |      |      |
| SQT-14.1.5.4.18.06       | MSS VALVE SEAT LEAKAGE TEST                                |                   |      | X    |      |
| SQT-14.1.5.4.19.01       | SOURCE RANGE CHANNEL FAILURE TEST                          |                   |      |      | X    |
| SQT-14.1.5.4.19.02       | INTERMEDIATE RANGE CHANNEL FAILURE TEST                    | X                 |      |      |      |
| SQT-14.1.5.4.19.03       | POWER RANGE CHANNEL FAILURE TEST                           |                   | X    |      |      |
| SQT-14.1.5.4.19.04       | INTERMEDIATE RANGE COMPENSATING VOLTAGE FAILURE TEST       |                   |      | X    |      |
| SQT-14.1.5.4.19.05       | SOURCE RANGE HIGH VOLTAGE CUTOFF FAILURE TEST              |                   |      |      | X    |
| SQT-14.1.5.4.19.06       | SOURCE RANGE BLOWN FUSE TEST                               | X                 |      |      |      |
| SQT-14.1.5.4.19.07       | INTERMEDIATE RANGE BLOWN FUSE TEST                         |                   | X    |      |      |
| SQT-14.1.5.4.19.08       | POWER RANGE BLOWN FUSE TEST                                |                   |      | X    |      |

Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

| SQT TEST NUMBER          | TEST DESCRIPTION                                      | YEAR TO BE TESTED |      |      |      |
|--------------------------|---|-------------------|------|------|------|
|                          |   | 1996              | 1997 | 1998 | 1999 |
| <b>Malfunction Tests</b> |   |                   |      |      |      |
| SQT-14.1.5.4.20.01       | AUTOMATIC ROD SPEED CONTROLLER FAILURE TEST           |                   |      |      | X    |
| SQT-14.1.5.4.20.02       | ROD CONTROL TREF FAILURE TEST                         | X                 |      |      |      |
| SQT-14.1.5.4.20.03       | ROD STOP FAILURE TEST                                 |                   | X    |      |      |
| SQT-14.1.5.4.21.01       | REACTOR TRIP FAILURE TEST                             |                   |      | X    |      |
| SQT-14.1.5.4.21.02       | INADVERTENT REACTOR TRIP TEST                         |                   |      |      | X    |
| SQT-14.1.5.4.21.03       | INADVERTENT SAFETY INJECTION SIGNAL TEST              | X                 |      |      |      |
| SQT-14.1.5.4.21.04       | INADVERTENT CONTAINMENT ISOLATION PHASE A SIGNAL TEST |                   | X    |      |      |
| SQT-14.1.5.4.21.05       | SAFETY INJECTION ACTUATION FAILURE TEST               |                   |      | X    |      |
| SQT-14.1.5.4.21.06       | SSPS INPUT RELAY FAILURE TEST                         |                   |      |      | X    |
| SQT-14.1.5.4.21.07       | ESF LOAD AUTO-START FAILURE TEST                      | X                 |      |      |      |
| SQT-14.1.5.4.22.01       | REACTOR COOLANT PUMP NO. 1 SEAL FAILURE TEST          |                   | X    |      |      |
| SQT-14.1.5.4.22.02       | REACTOR COOLANT PUMP NO. 2 SEAL FAILURE TEST          |                   |      | X    |      |
| SQT-14.1.5.4.22.03       | REACTOR COOLANT PUMP NO. 3 SEAL FAILURE TEST          |                   |      |      | X    |
| SQT-14.1.5.4.22.04       | RCP TRIP TEST   |                   | X    |      |      |
| SQT-14.1.5.4.22.05       | RCP LOCKED ROTOR TEST                                 | X                 |      |      |      |
| SQT-14.1.5.4.22.06       | RCP HIGH VIBRATION TEST                               |                   | X    |      |      |
| SQT-14.1.5.4.22.07       | RCP SHEARED SHAFT TEST                                | X                 |      |      |      |
| SQT-14.1.5.4.22.08       | RCP LUBE OIL LEAK TEST                                |                   |      | X    |      |
| SQT-14.1.5.4.22.09       | RCP THERMAL BARRIER HEAT EXCHANGER TUBE LEAK TEST     |                   |      |      | X    |
| SQT-14.1.5.4.23.01       | SURGE LINE LEAK TEST                                  | X                 |      |      |      |
| SQT-14.1.5.4.23.02       | SMALL BREAK LOCA TEST                                 |                   |      | X    |      |
| SQT-14.1.5.4.23.03       | LARGE BREAK LOCA TEST                                 |                   |      |      | X    |
| SQT-14.1.5.4.23.04       | STEAM GENERATOR TUBE LEAK TEST                        |                   | X    |      |      |
| SQT-14.1.5.4.23.05       | REACTOR VESSEL HEAD O-RING LEAK TEST                  |                   |      |      | X    |
| SQT-14.1.5.4.23.06       | INTERMEDIATE LEG BREAK TEST                           | X                 |      |      |      |
| SQT-14.1.5.4.23.07       | PRESSURIZER SAFETY VALVE FAILURE TEST                 |                   | X    |      |      |
| SQT-14.1.5.4.23.08       | PRESSURIZER STEAM SPACE LEAK TEST                     |                   |      | X    |      |
| SQT-14.1.5.4.23.09       | RCS LOOP ISOLATION VALVE STEM FAILURE TEST            |                   |      | X    |      |
| SQT-14.1.5.4.23.10       | RCS VALVE SEAT LEAKAGE TEST                           |                   |      |      | X    |
| SQT-14.1.5.4.23.11       | VARIABLE PRESSURIZER NONCONDENSABLE PARTIAL PRESSURE  | X                 |      |      |      |
| SQT-14.1.5.4.24.01       | RHS SUCTION RELIEF LEAKAGE TEST                       | X                 |      |      |      |
| SQT-14.1.5.4.24.02       | RHS PUMP VORTEING TEST                                |                   | X    |      |      |
| SQT-14.1.5.4.24.03       | RHS HEAT EXCHANGER TUBE LEAK TEST                     |                   |      | X    |      |

Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

| SQT TEST NUMBER          | TEST DESCRIPTION                                   | YEAR TO BE TESTED |      |      |      |
|--------------------------|--|-------------------|------|------|------|
|                          |  | 1996              | 1997 | 1998 | 1999 |
| <b>Malfunction Tests</b> |  |                   |      |      |      |
| SQT-14.1.5.4.24.04       | RHS SYSTEM LEAK TEST                               |                   |      |      | X    |
| SQT-14.1.5.4.24.05       | RHS VALVE SEAT LEAKAGE TEST                        | X                 |      |      |      |
| SQT-14.1.5.4.25.01       | REACTOR COOLANT SYSTEM ACTIVITY HIGH TEST          |                   |      | X    |      |
| SQT-14.1.5.4.25.02       | REACTIVITY ANOMALY TEST                            |                   | X    |      |      |
| SQT-14.1.5.4.26.01       | SPENT FUEL POOL PURIFICATION SYSTEM LEAK TEST      |                   |      |      | X    |
| SQT-14.1.5.4.26.02       | SPENT FUEL POOL COOLING SYSTEM LEAK TEST           | X                 |      |      |      |
| SQT-14.1.5.4.27.01       | STEAM GENERATOR BLOWDOWN SYSTEM LEAK TEST          |                   | X    |      |      |
| SQT-14.1.5.4.28.01       | REFUELING WATER STORAGE TANK LEAK TEST             |                   |      | X    |      |
| SQT-14.1.5.4.28.02       | ACCUMULATOR GAS SPACE LEAK TEST                    |                   |      |      | X    |
| SQT-14.1.5.4.28.03       | ACCUMULATOR WATER SPACE LEAK TEST                  | X                 |      |      |      |
| SQT-14.1.5.4.28.04       | SAFETY INJECTION LINE LEAK TEST                    |                   | X    |      |      |
| SQT-14.1.5.4.28.05       | SIS VALVE SEAT LEAKAGE TEST                        |                   |      | X    |      |
| SQT-14.1.5.4.29.01       | STATION BLACKOUT TEST                              |                   |      |      | X    |
| SQT-14.1.5.4.29.02       | TRANSFORMER FAILURE TEST                           | X                 |      |      |      |
| SQT-14.1.5.4.30.01       | SERVICE WATER LINE LEAK TEST                       |                   | X    |      |      |
| SQT-14.1.5.4.30.02       | LOSS OF UNIT 1 SEAL WATER TO SWS PUMP TEST         |                   |      | X    |      |
| SQT-14.1.5.4.30.03       | CLOGGED SEAL WATER STRAINER TEST                   |                   |      |      | X    |
| SQT-14.1.5.4.31.01       | TURBINE BEARING HIGH VIBRATION TEST                | X                 |      |      |      |
| SQT-14.1.5.4.31.02       | AIR-SIDE HYDROGEN SEAL OIL HEADER LEAK TEST        |                   | X    |      |      |
| SQT-14.1.5.4.31.03       | PLUGGED HYDROGEN SEAL OIL FILTER TEST              |                   |      | X    |      |
| SQT-14.1.5.4.31.04       | SEAL OIL LEAK TO GENERATOR TEST                    |                   |      |      | X    |
| SQT-14.1.5.4.31.05       | MAIN LUBE OIL PUMP DISCHARGE HEADER LEAK TEST      | X                 |      |      |      |
| SQT-14.1.5.4.32.01       | GASEOUS WASTE SURGE TANK EFFLUENT LEAK TEST        |                   | X    |      |      |
| SQT-14.1.5.4.32.02       | GASEOUS WASTE DECAY TANK EFFLUENT HEADER LEAK TEST |                   |      | X    |      |
| SQT-14.1.5.4.33.01       | CHECK SOURCE TEST FAILURE TEST                     |                   |      |      | X    |
| SQT-14.1.5.4.33.02       | FILTER ADVANCE FAILURE TEST                        | X                 |      |      |      |
| SQT-14.1.5.4.33.03       | LOSS OF FLOW CONTROL TEST                          |                   | X    |      |      |
| SQT-14.1.5.4.9.2.1       | CHARGING SYSTEM LEAK TEST                          |                   |      | X    |      |
| SQT-14.1.5.4.9.2.2       | LETDOWN SYSTEM LEAK TEST                           |                   |      |      | X    |
| SQT-14.1.5.4.9.2.3       | BORIC ACID TANK SYSTEM LEAK TEST                   | X                 |      |      |      |
| SQT-14.1.5.4.9.2.4       | SEAL INJECTION SYSTEM LEAK TEST                    |                   | X    |      |      |
| SQT-14.1.5.4.9.2.5       | BORON RECOVERY SYSTEM LEAK TEST                    |                   |      | X    |      |
| SQT-14.1.5.5.1.01        | ACB-342 FAILS AS-IS                                |                   |      |      | X    |



Beaver Valley Power Station Unit 2  
Four Year Simulator Certification Report  
1992 - 1995

| SQT TEST NUMBER          | TEST DESCRIPTION                                     | YEAR TO BE TESTED |      |      |      |
|--------------------------|--|-------------------|------|------|------|
|                          |  | 1996              | 1997 | 1998 | 1999 |
| <b>Malfunction Tests</b> |  |                   |      |      |      |
| SQT-14.1.5.5.1.02        | ACB-142 FAILS TO AUTO TRANSFER                       | X                 |      |      |      |
| SQT-14.1.5.5.1.03        | OCB-94 TRIPS   |                   | X    |      |      |
| SQT-14.1.5.5.2.01        | 2CCP*P21B SEVERED POWER LEADS                        |                   |      | X    |      |
| SQT-14.1.5.5.2.02        | 2FWS-P21A SHEARED SHAFT                              |                   |      |      | X    |
| SQT-14.1.5.5.2.03        | 2CNM-P21B SEIZED SHAFT                               | X                 |      |      |      |
| SQT-14.1.5.5.2.04        | PRESSURIZER HEATER SHORT TEST                        |                   | X    |      |      |
| SQT-14.1.5.5.3.01        | 2QSS*MOV101B STICKS AT 30 PERCENT WHILE OPENING      |                   |      | X    |      |
| SQT-14.1.5.5.3.02        | 2RHS*MOV750B SPURIOUSLY OPENS TEST                   |                   |      |      | X    |
| SQT-14.1.5.5.3.03        | 2SIS*MOV867B SPURIOUSLY CLOSES                       | X                 |      |      |      |
| SQT-14.1.5.5.3.04        | 2CHS*MOV350 LOSES POWER                              |                   | X    |      |      |
| SQT-14.1.5.5.3.05        | 2SIS*MOV8888A HANDWHEEL OPERATIONS                   |                   |      | X    |      |
| SQT-14.1.5.5.4.01        | 2BDG*AOV101C2 FAILS TO 20 PERCENT                    |                   |      |      | X    |
| SQT-14.1.5.5.4.02        | 2SAS*AOV105 SPURIOUSLY OPENS                         | X                 |      |      |      |
| SQT-14.1.5.5.4.03        | 2CHS*AOV200A SPURIOUSLY CLOSES TEST                  |                   | X    |      |      |
| SQT-14.1.5.5.4.04        | 2CHS*LCV460B LOSES CONTROL POWER                     |                   |      | X    |      |
| SQT-14.1.5.5.5.01        | 2CHS*SOV206 FAILS TO 35 PERCENT                      |                   |      |      | X    |
| SQT-14.1.5.5.5.02        | 2GNS*SOV853F SPURIOUSLY OPENS                        | X                 |      |      |      |
| SQT-14.1.5.5.5.03        | 2MSS*SOV105A SPURIOUSLY CLOSES                       |                   | X    |      |      |
| SQT-14.1.5.5.5.04        | 2RCS*PCV456 LOSES POWER                              |                   |      | X    |      |
| SQT-14.1.5.5.6.01        | 2FWS*HYV157A FAILS TO 90 PERCENT                     |                   |      |      | X    |
| SQT-14.1.5.5.6.02        | 2FWS*HYV157B SPURIOUSLY OPENS                        | X                 |      |      |      |
| SQT-14.1.5.5.6.03        | 2FWS*HYV157C SPURIOUSLY CLOSES                       |                   | X    |      |      |
| SQT-14.1.5.5.6.04        | 2FWS*HYV157A LOSS OF PUMP POWER                      |                   |      | X    |      |
| SQT-14.1.5.5.6.05        | 2FWS*HYV157B ACTUATOR OIL LEAK                       |                   |      |      | X    |
| SQT-14.1.5.5.7.01        | 2CCP*TCV144 FAILS AS-IS                              | X                 |      |      |      |
| SQT-14.1.5.5.7.02        | 2FWE*HCV100C LOSS OF CONTROL SIGNAL TEST             |                   | X    |      |      |
| SQT-14.1.5.5.7.03        | 2FWE*HCV100A LOSS OF ACTUATOR POWER                  |                   |      | X    |      |
| SQT-14.1.5.5.8.01        | 2CCP-192 STICKS OPEN                                 |                   |      |      | X    |
| SQT-14.1.5.5.8.02        | 2FWE*101 STICKS CLOSED AFTER CLOSING                 | X                 |      |      |      |
| SQT-14.1.5.5.8.03        | 2RHS*4 SEAT LEAKAGE TEST                             |                   | X    |      |      |
| SQT-14.1.5.5.9.01        | 2CCP*E21A TUBE FOULING                               |                   |      | X    |      |
| SQT-14.1.5.5.10.01       | 2RCS*PK444A OUTPUT FAILS TO 35 PERCENT               |                   |      |      | X    |
| SQT-14.1.5.5.10.02       | 2SVS*PCV101A OUTPUT FAILS AT 80 PERCENT IN AUTOMATIC | X                 |      |      |      |
| SQT-14.1.5.5.10.03       | 2FWS*FCV478 OUTPUT OSCILLATIONS IN AUTOMATIC         |                   | X    |      |      |
| SQT-14.1.5.5.10.04       | 2CNM-LC101 OUTPUT FAILS TO 100 PERCENT               |                   |      | X    |      |
| SQT-14.1.5.5.11.01       | 2RCS*TE420 OUTPUT FAILS TO 565 DEG F                 |                   |      |      | X    |
| SQT-14.1.5.5.11.02       | 2FWS*FT476 OPERATING BIAS OF -5 PERCENT              | X                 |      |      |      |
| SQT-14.1.5.5.12.01       | 2RCS-TSH471 ACTUATES                                 |                   | X    |      |      |

Beaver Valley Power Station Unit 2  
 Four Year Simulator Certification Report  
 1992 - 1995

| SQT TEST<br>NUMBER       | TEST DESCRIPTION         | YEAR TO BE TESTED |      |      |      |
|--------------------------|--------------------------|-------------------|------|------|------|
|                          |                          | 1996              | 1997 | 1998 | 1999 |
| <b>Malfunction Tests</b> |                          |                   |      |      |      |
| SQT-14.1.5.5.12.02       | 2RCS-TSH412D-2 INHIBITED |                   |      | X    |      |
| SQT-14.1.5.5.12.03       | 2CHS-TSH143 FAILS AS-IS  |                   |      | X    |      |
|                          | TESTS PER YEAR           | 65                | 66   | 66   | 66   |
|                          | TOTAL TESTS              | 263               |      |      |      |