WATTS BAR NUCLEAR PLANT
UNIT 2 PREOPERATIONAL TEST

TITLE: Reactor Protection Setpoint Verification

Instruction No: 2-PTI-099-06

Revision No: 0000

PREPARED BY: Nicholas C. Piplica / Nicholas C. Piplica DATE: 11/08/12
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REVIEWED BY: Mark D. Runion / Mark D. Runion DATE: 11/8/12
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INSTRUCTION APPROVAL

JTG MEETING No: 2-12-021

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APPROVED BY : Mark A Welch DATE: 11/15/12
PREOPERATIONAL STARTUP MANAGER

TEST RESULTS APPROVAL

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APPROVED BY : _____ DATE: _____
PREOPERATIONAL STARTUP MANAGER

Revision Log

Revision or Change Number	Effective Date	Affected Page Numbers	Description of Revision/Change
0000	11/16/12	ALL	Initial issue based on PTI-099-06 for Unit 1.

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1.0 INTRODUCTION

1.1 Test Objectives

Verify initial setpoint adjustments have been made prior to plant startup and are in agreement with Watts Bar Nuclear Plant design requirements.

1.2 Scope

The scope of this instruction verifies setpoints associated with Reactor Trips and the Engineered Safety Features Actuations.

2.0 REFERENCES

2.1 Performance References

1. SMP-9.0, Watts Bar Nuclear Plant Unit 2 - Conduct of Test
2. 2-SI-1-1, 18 Month Channel Calibration SG 1 Main Steam Header Pressure Channel I Loop 2-LPP-1-2A (P-514)
3. 2-SI-1-2, 18 Month Channel Calibration SG 1 Main Steam Header Pressure Channel II Loop 2-LPP-1-2B (P-515)
4. 2-SI-1-3, 18 Month Channel Calibration SG 1 Main Steam Header Pressure Channel IV Loop 2-LPP-1-5 (P-516)
5. 2-SI-1-4, 18 Month Channel Calibration SG 2 Main Steam Header Pressure Channel I Loop 2-LPP-1-9A (P-524)
6. 2-SI-1-5, 18 Month Channel Calibration SG 2 Main Steam Header Pressure Channel II Loop 2-LPP-1-9B (P-525)
7. 2-SI-1-6, 18 Month Channel Calibration SG 2 Main Steam Header Pressure Channel III Loop 2-LPP-1-12 (P-526)
8. 2-SI-1-7, 18 Month Channel Calibration SG 3 Main Steam Header Pressure Channel I Loop 2-LPP-1-20A (P-534)
9. 2-SI-1-8, 18 Month Channel Calibration SG 3 Main Steam Header Pressure Channel II Loop 2-LPP-1-20B (P-535)
10. 2-SI-1-9, 18 Month Channel Calibration SG 3 Main Steam Header Pressure Channel III Loop 2-LPP-1-23 (P-536)
11. 2-SI-1-10, 18 Month Channel Calibration SG 4 Main Steam Header Pressure Channel I Loop 2-LPP-1-27A (P-544)

2.1 Performance References (continued)

12. 2-SI-1-11, 18 Month Channel Calibration SG 4 Main Steam Header Pressure Channel II Loop 2-LPP-1-27B (P-545)

13. 2-SI-1-12, 18 Month Channel Calibration SG 4 Main Steam Header Pressure Channel IV Loop 2-LPP-1-30 (P-546)

14. 2-SI-1-72, 18 Month Channel Calibration Turbine Impulse Chamber Pressure Channel II, Loop 2-LPP-1-72 (P-506)

15. 2-SI-1-73, 18 Month Channel Calibration Turbine Impulse Chamber Pressure Channel I, Loop 2-LPP-1-73 (P-505)

16. 2-SI-3-1, 18 Month Channel Calibration Steam Generator 1 Narrow Range Level Channel II Loop 2-LPL-3-38 (L-519)

17. 2-SI-3-2, 18 Month Channel Calibration Steam Generator 1 Narrow Range Level Channel III Loop 2-LPL-3-39 (L-518)

18. 2-SI-3-3, 18 Month Channel Calibration Steam Generator 1 Narrow Range Level Channel IV Loop 2-LPL-3-42 (L-517)

19. 2-SI-3-4, 18 Month Channel Calibration Steam Generator 2 Narrow Range Level Channel II Loop 2-LPL-3-51 (L-529)

20. 2-SI-3-5, 18 Month Channel Calibration Steam Generator 2 Narrow Range Level Channel III Loop 2-LPL-3-52 (L-528)

21. 2-SI-3-6, 18 Month Channel Calibration Steam Generator 2 Narrow Range Level Channel IV Loop 2-LPL-3-55 (L-527)

22. 2-SI-3-7, 18 Month Channel Calibration Steam Generator 3 Narrow Range Level Channel II Loop 2-LPL-3-93 (L-539)

23. 2-SI-3-8, 18 Month Channel Calibration Steam Generator 3 Narrow Range Level Channel III Loop 2-LPL-3-94 (L-538)

24. 2-SI-3-9, 18 Month Channel Calibration Steam Generator 3 Narrow Range Level Channel IV Loop 2-LPL-3-97 (L-537)

25. 2-SI-3-10, 18 Month Channel Calibration Steam Generator 4 Narrow Range Level Channel II Loop 2-LPL-3-106 (L-549)

26. 2-SI-3-11, 18 Month Channel Calibration Steam Generator 4 Narrow Range Level Channel III Loop 2-LPL-3-107 (L-548)

27. 2-SI-3-12, 18 Month Channel Calibration Steam Generator 4 Narrow Range Level Channel IV Loop 2-LPL-3-110 (L-547)

2.1 Performance References (continued)

28. 2-SI-3-13, 184 Day Channel Operational Test And 18 Month Channel Calibration Steam Generator Level Trip Time Delay Channel II, Loop 2-LPL-3-38T (L-519-549)

29. 2-SI-3-14, 184 Day Channel Operational Test And 18 Month Channel Calibration Steam Generator Level Trip Time Delay Channel III, Loop 2-LPL-3-39T (L-518-548)

30. 2-SI-3-15, 184 Day Channel Operational Test And 18 Month Channel Calibration Steam Generator Level Trip Time Delay Channel IV, Loop 2-LPL-3-42T (L-517-547)

31. 2-SI-3-21, 18 Month Channel Calibration, Auxiliary Feedwater Pump 2A-A Suction Header Pressure Switches

32. 2-SI-3-22, 18 Month Channel Calibration, Auxiliary Feedwater Pump 2B-B Suction Header Pressure Switches

33. 2-SI-3-25, 18 Month Channel Calibration, TADOT and Response Time Test AFW Initiation From Main Feedpump Turbine 2A Trip

34. 2-SI-3-26, 18 Month Channel Calibration, TADOT and Response Time Test AFW Initiation From Main Feedpump Turbine 2B Trip

35. 2-SI-3-402, 18 Month Channel Calibration South Valve Vault Level Switch Channel I Loop 2-LPL-3-402

36. 2-SI-3-403, 18 Month Channel Calibration South Valve Vault Level Switch Channel III Loop 2-LPL-3-403

37. 2-SI-3-404, 18 Month Channel Calibration South Valve Vault Level Switch Channel IV Loop 2-LPL-3-404

38. 2-SI-3-405, 18 Month Channel Calibration North Valve Vault Level Switch Channel I Loop 2-LPL-3-405

39. 2-SI-3-406, 18 Month Channel Calibration North Valve Vault Level Switch Channel III Loop 2-LPL-3-406

40. 2-SI-3-407, 18 Month Channel Calibration North Valve Vault Level Switch Channel IV Loop 2-LPL-3- 407

41. 2-SI-30-42, 18 Month Channel Calibration Containment Pressure Channel IV Loop 2-LPP-30-42 (P-934)

42. 2-SI-30-43, 18 Month Channel Calibration Containment Pressure Channel III Loop 2-LPP-30-43 (P-935)

2.1 Performance References (continued)

43. 2-SI-30-44, 18 Month Channel Calibration Containment Pressure Channel II Loop 2-LPP-30-44 (P-936)

44. 2-SI-30-45, 18 Month Channel Calibration Containment Pressure Channel I Loop 2-LPP-30-45 (P-937)

45. 2-SI-63-1, 18 Month Channel Calibration Containment Sump Level Channel I Loop 2-LPL-63-180 (L-920)

46. 2-SI-63-2, 18 Month Channel Calibration Containment Sump Level Channel II Loop 2-LPL-63-181 (L-921)

47. 2-SI-63-3, 18 Month Channel Calibration Containment Sump Level Channel III Loop 2-LPL-63-182 (L-940)

48. 2-SI-63-4, 18 Month Channel Calibration Containment Sump Level Channel IV Loop 2-LPL-63-183 (L-941)

49. 2-SI-63-50, 18 Month Channel Calibration RWST Level Channel I Loop 2-LPL-63-50 (L-913)

50. 2-SI-63-51, 18 Month Channel Calibration RWST Level Channel II Loop 2-LPL-63-51 (L-914)

51. 2-SI-63-52, 18 Month Channel Calibration RWST Level Channel III Loop 2-LPL-63-52 (L-915)

52. 2-SI-63-53, 18 Month Channel Calibration RWST Level Channel IV Loop 2-LPL-63-53 (L-916)

53. 2-SI-68-1, 18 Month Channel Calibration RCS Loop 1 Delta T/Tavg Channel I Loop 2-LPT-68-2 (T-411/412)

54. 2-SI-68-2, 18 Month Channel Calibration RCS Loop 2 Delta T/Tavg Channel II Loop 2-LPT-68-25 (T-421/422)

55. 2-SI-68-3, 18 Month Channel Calibration RCS Loop 3 Delta T/Tavg Channel III Loop 2-LPT-68-44 (T-431/432)

56. 2-SI-68-4, 18 Month Channel Calibration RCS Loop 4 Delta T/Tavg Channel IV Loop 2-LPT-68-67 (T-441/442)

57. 2-SI-68-5, 18 Month Channel Calibration Pressurizer Pressure Channel I Loop 2-LPP-68-340 (P-455)

58. 2-SI-68-6, 18 Month Channel Calibration Pressurizer Pressure Channel II Loop 2-LPP-68-334 (P-456)

2.1 Performance References (continued)

59. 2-SI-68-7, 18 Month Channel Calibration Pressurizer Pressure Channel III Loop 2-LPP-68-323 (P-457)

60. 2-SI-68-8, 18 Month Channel Calibration Pressurizer Pressure Channel IV Loop 2-LPP-68-322 (P-458)

61. 2-SI-68-9, 18 Month Channel Calibration Pressurizer Level Channel I Loop 2-LPL-68-339 (L-459)

62. 2-SI-68-10, 18 Month Channel Calibration Pressurizer Level Channel II Loop 2-LPL-68-335 (L-460)

63. 2-SI-68-11, 18 Month Channel Calibration Pressurizer Level Channel III Loop 2-LPL-68-320 (L-461)

64. 2-SI-68-12, 18 Month Channel Calibration Reactor Coolant Flow Loop 1 Channel I Loop 2-LPF-68-6A (F-414)

65. 2-SI-68-13, 18 Month Channel Calibration Reactor Coolant Flow Loop 1 Channel II Loop 2-LPF-68-6B (F-415)

66. 2-SI-68-14, 18 Month Channel Calibration Reactor Coolant Flow Loop 1 Channel III Loop 2-LPF-68-6D (F-416)

67. 2-SI-68-15, 18 Month Channel Calibration Reactor Coolant Flow Loop 2 Channel I Loop 2-LPF-68-29A (F-424)

68. 2-SI-68-16, 18 Month Channel Calibration Reactor Coolant Flow Loop 2 Channel II Loop 2-LPF-68-29B (F-425)

69. 2-SI-68-17, 18 Month Channel Calibration Reactor Coolant Flow Loop 2 Channel III Loop 2-LPF-68-29D (F-426)

70. 2-SI-68-18, 18 Month Channel Calibration Reactor Coolant Flow Loop 3 Channel I Loop 2-LPF-68-48A (F-434)

71. 2-SI-68-19, 18 Month Channel Calibration Reactor Coolant Flow Loop 3 Channel II Loop 2-LPF-68-48B (F-435)

72. 2-SI-68-20, 18 Month Channel Calibration Reactor Coolant Flow Loop 3 Channel III Loop 2-LPF-68-48D (F-436)

73. 2-SI-68-21, 18 Month Channel Calibration Reactor Coolant Flow Loop 4 Channel I Loop 2-LPF-68-71A (F-444)

74. 2-SI-68-22, 18 Month Channel Calibration Reactor Coolant Flow Loop 4 Channel II Loop 2-LPF-68-71B (F-445)

2.1 Performance References (continued)

75. 2-SI-68-23, 18 Month Channel Calibration Reactor Coolant Flow Loop 4 Channel III Loop 2-LPF-68-71D (F-446)

76. 2-SI-68-36, 18 Month Reactor Coolant Pump 1 Underfrequency Relay Calibration

77. 2-SI-68-37, 18 Month Reactor Coolant Pump 2 Underfrequency Relay Calibration

78. 2-SI-68-38, 18 Month Reactor Coolant Pump 3 Underfrequency Relay Calibration

79. 2-SI-68-39, 18 Month Reactor Coolant Pump 4 Underfrequency Relay Calibration

80. 2-SI-68-40, 18 Month Reactor Coolant Pump 1 Undervoltage Channel Calibration

81. 2-SI-68-41, 18 Month Reactor Coolant Pump 2 Undervoltage Channel Calibration

82. 2-SI-68-42, 18 Month Reactor Coolant Pump 3 Undervoltage Channel Calibration

83. 2-SI-68-43, 18 Month Reactor Coolant Pump 4 Undervoltage Channel Calibration

84. 2-SI-92-31, 18 Month Channel Calibration of Source Range, Intermediate Range, and Remote Shutdown Neutron Flux Channel I

85. 2-SI-92-32, 18 Month Channel Calibration of Source Range and Intermediate Range Channel II

86. 2-SI-92-41, 18 Month Channel Calibration of Power Range Nuclear Instrumentation System Channel N-41

87. 2-SI-92-42, 18 Month Channel Calibration of Power Range Nuclear Instrumentation System Channel N-42

88. 2-SI-92-43, 18 Month Channel Calibration of Power Range Nuclear Instrumentation System Channel N-43

89. 2-SI-92-44, 18 Month Channel Calibration of Power Range Nuclear Instrumentation System Channel N-44

90. 2-SI-47-28, 18 Month Channel Calibration Turbine Trip - Turbine Stop Valve Closure Channel I, (Channel I, II, III, & IV) [2-ZS-47-28, 30, 32, & 34]

2.1 Performance References (continued)

91. 2-SI-47-73, 18 Month Channel Calibration Turbine Trip - Low Fluid Oil Pressure Channel I Loop 2-PS-47-73-D

92. 2-SI-47-74, 18 Month Channel Calibration Turbine Trip - Low Fluid Oil Pressure Channel II Loop 2-PS-47-74-E

93. 2-SI-47-75, 18 Month Channel Calibration Turbine Trip - Low Fluid Oil Pressure Channel III Loop 2-PS-47-75-F

94. 2-SI-99-10-A, 62 Day Functional Test of SSPS Train A and Reactor Trip Breaker A

95. 2-SI-99-10-B, 62 Day Functional Test of SSPS Train B and Reactor Trip Breaker B

96. 2-PTI-099-05, NSSS Turbine Runback

97. 2-ATI-047A-02, Turbine Trips and Protections

98. SSD-2-LPP-2-1, Scaling and Setpoint Document Condenser Zone A Hotwell Narrow Range Pressure

99. SSD-2-LPP-2-7, Scaling and Setpoint Document Condenser Zone B Hotwell Narrow Range Pressure

100. Work Order 113725926, Unique one-time test for HP Turbine Impulse Chamber Pressure Control (C-7), CTN 2-001-12296-IU1-000

101. 2-47A630-98-205, Rev. 0 (ANT), DRA 56744-005, Rev. 0, DCS Software Control Block Parameters - Processor W205CP

2.2 Developmental References

A. Final Safety Analysis Report (FSAR)- Amendment 109

1. Table 14.2.1, Sheet 57 of 89, Reactor Protection System Test Summary

2. Section 7.2, Reactor Trip System

3. Section 7.3, Engineered Safety Features Actuation System

B. Documents

1. PTI-99-06, Rev. 0, Reactor Protection Setpoint Verification

2. 2-TSD-99-06, Rev. 1, Reactor Protection Setpoint Verification

2.2 Developmental References (continued)

3. WBN2-99-4003, Rev. 0, System Description For Reactor Protection System

4. WBN2-47-4002, Rev. 1, Turbogenerator System (Part 1) and Turbogenerator Control and Protection System (Part 2)

3.0 PRECAUTIONS AND LIMITATIONS

A. Steps may be repeated if all components cannot be tested in a step. However, if the test has been exited, prerequisite steps must be re-verified and a Chronological Test Log (CTL) entry made.

B. Discrepancies between component ID tags and the description in a procedure/instruction do not require a Test Deficiency Notice (TDN) in accordance with SMP-14.0, if the UNIDs match, exclusive of place-keeping zeros and train designators (e.g. 2-HS-31-468 vs. 2-HS-031-0468) and the noun description is sufficient to identify the component. If the component label needs to be changed, a Tag Request Form (TR Card) should be processed in accordance with TI-12.14. Make an entry in the CTL and continue testing.

C. All open problems are to be tracked by a corrective action document and entered on the appropriate system punchlist.

D. Problems identified during the test shall be annotated on the CTL from SMP-9.0 including a description of the problem, the procedure step when/where the problem was identified, corrective action steps taken to resolve the problem, and the number of the corrective action document, if one was required.

E. Data Sheets are to be completed by entering the data from the completed procedure shown on the Data Sheet or where indicated from the Eagle Surveillance Instruction printout.

F. The Work Package number of the performance package will be entered on the Data Sheet and verified for each entry.

G. On Data Sheet 1 through 21 the columns for REQUIRED SET PT ACTION and ACTUAL SET PT ACTION will have the setpoint action addressed for trip setpoints only. Parameters which do not have an action associated with them will not have an action indicated or required.

H. On Data Sheets containing Eagle 21 trip setpoints the ACTUAL SET PT ACTION column will have two values recorded for Eagle 21 equipment trip setpoints. These values are the actual minimum value and the actual maximum value. The Eagle 21 Surveillance Test Software presents the worst case minimum and the maximum trips based on multiple test passes through the setpoint.

I. For Eagle 21 equipment parameters the least significant digit may deviate by one from the REQUIRED VALUES, i.e. 588.2 may be presented as 588.1999.

J. Eagle 21 equipment parameters that are not trip setpoints may be obtained using the work order associated with the calibration procedure instead of the calibration procedure.

Date _____

4.0 PREREQUISITE ACTIONS

NOTE

Prerequisite steps may be performed in any order unless otherwise stated and should be completed as close in time as practicable to the start of the instruction subsection to which they apply.

4.1 Preliminary Actions

[1] **EVALUATE** open items in Watts Bar Integrated Task Equipment List (WITEL), and

ENSURE they will NOT adversely affect the test performance and results. _____

[2] **ENSURE** changes to the references listed on Appendix A, have been reviewed, and determined NOT to adversely affect the test performance. _____

[3] **VERIFY** the test/performance copy of this Preoperational Test Instruction (PTI) is the current revision including any change notices and as needed, each test person assisting in this test has the current revision including any change notices. _____

[4] **ENSURE** outstanding Design Change Notices (DCN's), Engineering Document Construction Releases (EDCR's) or Temporary Alterations (TA's) do NOT adversely impact testing, and

ATTACH documentation of DCN's, EDCR's and TA's that were reviewed to the data package. _____

[5] **OBTAIN** copies of the applicable forms from the latest revision of SMP-9.0, and

ATTACH to this PTI for use during the performance of this PTI. _____

[6] **VERIFY** instructions listed in Table 1 have JTG concurrence that the instructions satisfy the requirements for this instruction. _____

[7] **ENSURE** components contained within the boundaries of this test are under the jurisdictional control of Preoperational Startup Engineering (PSE) and/or Plant Operations. _____

Date _____

4.2 Special Tools, Measuring and Test Equipment, Parts, and Supplies

This is a desktop performed instruction with no actual field testing. Measuring and Test Equipment or Permanent Plant Instrumentation Log is not required since the setpoint values obtained for this instruction are gathered from previously performed instructions listed in Table 1.

4.3 Field Preparations

None

4.4 Approvals and Notifications

[1] **OBTAIN** permission of the Preoperational Startup Manager to start the test.

_____ _____

Preoperational Startup Manager Signature Date

[2] **OBTAIN** the Unit 2 Supervisor's (US/SRO) or Shift Manager's (SM) authorization.

_____ _____

US/SRO/SM Signature Date

5.0 ACCEPTANCE CRITERIA

5.1 Reactor Trips

[1] The initial setpoints for Power Range High Neutron Flux Trip agree with the design requirements. (Step 6.1[1]C, Data Sheet 1)

[2] The initial setpoints for Intermediate Range High Neutron Flux Trip agree with the design requirements. (Step 6.1[2]C, Data Sheet 2)

[3] The initial setpoints for Source Range High Neutron Flux Trip agree with the design requirements. (Step 6.1[3]C, Data Sheet 3)

[4] The initial setpoints for Power Range High Positive Neutron Flux Rate Trip agree with the design requirements. (Step 6.1[4]C, Data Sheet 4)

[5] The initial setpoints for Overtemperature/Overpower Delta T Trip agree with the design requirements. (Step 6.1[5]C, Data Sheet 5)

[6] The initial setpoints for Pressurizer Low Pressure Trip agree with the design requirements. (Step 6.1[6]C, Data Sheet 6)

[7] The initial setpoints for Pressurizer High Pressure Trip agree with the design requirements. (Step 6.1[7]C, Data sheet 7)

[8] The initial setpoints for Pressurizer High Water Level Trip agree with the design requirements. (Step 6.1[8]C, Data Sheet 8)

[9] The initial setpoints for Low Reactor Coolant Flow Trip agree with the design requirements. (Step 6.1[9]C, Data Sheet 9)

[10] The initial setpoints for Reactor Coolant Pump Undervoltage Trip agree with the design requirements. (Step 6.1[10]C, Data Sheet 10)

[11] The initial setpoints for Reactor Coolant Pump Underfrequency Trip agree with the design requirements. (Step 6.1[11]C, Data Sheet 11)

[12] The initial setpoints for Low-Low Steam Generator Water Level Trip, including TTDs, agree with the design requirements. (Step 6.1[12]C, Data Sheet 12)

[13] The initial setpoints for Reactor Trip on Turbine Trip agree with the design requirements. (Step 6.1[13]C, Data Sheet 13)

[14] The initial setpoints for Reactor Trip System Permissives and Interlocks agree with the design requirements. (Step 6.1[14]C, Data Sheet 14)

5.2 Engineered Safety Features Actuations

[1] The initial setpoints for Low Pressurizer Pressure Safety Injection agree with the design requirements. (Step 6.2[1]C, Data Sheet 15)

[2] The initial setpoints for Low Steamline Pressure Safety Injection and Steamline Isolation agree with the design requirements. (Step 6.2[2]C, Data Sheet 16)

[3] The initial setpoints for Containment High Pressure Safety Injection agree with the design requirements. (Step 6.2[3]C, Data Sheet 17)

[4] The initial setpoints for Safety Injection Manual Reset Time Delay agree with the design requirements. (Step 6.2[4]C, Data Sheet 18)

[5] The initial setpoints for High Negative Steamline Pressure Rate Steamline Isolation agree with the design requirements. (Step 6.2[5]C, Data Sheet 19)

[6] The initial setpoints for High-High Containment Pressure Containment Isolation Phase B, Containment Spray, and Steamline Isolation agree with the design requirements. (Step 6.2[6]C, Data Sheet 20)

[7] The initial setpoints for the Miscellaneous ESFAS agree with the design requirements: (Step 6.2[7]C, Data Sheet 21)

Date _____

6.0 PERFORMANCE

NOTES

1) This is a desktop performed instruction. No actual field testing is required. Subsections may be performed in any order. Steps within a subsection are not required to be performed in the order written.
2) Table 1 (Step 4.1[6]) does not have to be fully completed prior to the performance of each step in this subsection. Only the Table 1 instructions applicable to the step, to be performed, must have JTG approval. As an example, JTG concurrence of 2-SI-68-9, 10, and 11 must be obtained in Table 1 (Step 4.1[6]) prior to performance of Step 6.1[8] and Data Sheet 8. Table 1 (Step 4.1[6]) should be fully completed prior to completing Section 6.0.

6.1 Reactor Trips

[1] Power Range High Neutron Flux Trip

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the "Actual" setpoints from the instructions listed on Data Sheet 1, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** "Actual" setpoints recorded on Data Sheet 1 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated.
(Acc Crit 5.1[1]) _____

Date _____

6.1 Reactor Trips (continued)

[2] Intermediate Range High Neutron Flux Trip

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 2, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 2 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated.
(Acc Crit 5.1[2]) _____

[3] Source Range High Neutron Flux Trip

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 3, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 3 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated.
(Acc Crit 5.1[3]) _____

Date _____

6.1 Reactor Trips (continued)

[4] Power Range High Positive Neutron Flux Rate Trip

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 4, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 4 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. (**Acc Crit 5.1[4]**) _____

[5] Overtemperature/Overpower Delta T Trip

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 5, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 5 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. (**Acc Crit 5.1[5]**) _____

Date _____

6.1 Reactor Trips (continued)

[6] Pressurizer Low Pressure Trip

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 6, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 6 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. **(Acc Crit 5.1[6])** _____

[7] Pressurizer High Pressure Trip

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 7, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 7 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. **(Acc Crit 5.1[7])** _____

Date _____

6.1 Reactor Trips (continued)

[8] Pressurizer High Water Level Trip

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 8, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 8 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. **(Acc Crit 5.1[8])** _____

[9] Low Reactor Coolant Flow Trip

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 9, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 9 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. **(Acc Crit 5.1[9])** _____

Date _____

6.1 Reactor Trips (continued)

[10] Reactor Coolant Pump Undervoltage Trip

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 10, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 10 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. **(Acc Crit 5.1[10])** _____

[11] Reactor Coolant Pump Underfrequency Trip

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 11, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 11 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. **(Acc Crit 5.1[11])** _____

Date _____

6.1 Reactor Trips (continued)

[12] Low-Low Steam Generator Water Level Trip (Including TTDs)

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 12, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 12 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. **(Acc Crit 5.1[12])** _____

[13] Reactor Trip On Turbine Trip

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 13, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 13 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. **(Acc Crit 5.1[13])** _____

Date _____

6.1 Reactor Trips (continued)

[14] Reactor Trip System Permissives and Interlocks

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 14, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 14 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. (**Acc Crit 5.1[14]**) _____

Date _____

6.2 Engineered Safety Features Actuations

[1] Low Pressurizer Pressure Safety Injection

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 15, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 15 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated.
(**Acc Crit 5.2[1]**) _____

[2] Low Steamline Pressure Safety Injection and Steamline Isolation

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 16, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 16 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated.
(**Acc Crit 5.2[2]**) _____

Date _____

6.2 Engineered Safety Features Actuations (continued)

[3] Containment High Pressure Safety Injection

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 17, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 17 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. (**Acc Crit 5.2[3]**) _____

[4] Safety Injection Manual Reset Time Delay

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 18, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 18 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. (**Acc Crit 5.2[4]**) _____

Date _____

6.2 Engineered Safety Features Actuations (continued)

[5] High Negative Steamline Pressure Rate Steamline Isolation

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 19, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 19 are within the Required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. (**Acc Crit 5.2[5]**) _____

[6] High-High Containment Pressure Containment Isolation Phase B, Containment Spray, and Steamline Isolation

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 20, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 20 are within the required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated. (**Acc Crit 5.2[6]**) _____

Date _____

6.2 Engineered Safety Features Actuations (continued)

[7] Miscellaneous ESFAS Setpoints

A. **VERIFY** prerequisites listed in Section 4.0 have been completed. _____

B. **OBTAIN** the Actual setpoints from the instructions listed on Data Sheet 21, **AND**

RECORD the values and work documents utilized in the spaces allocated. _____

C. **VERIFY** Actual setpoints recorded on Data Sheet 21 are within the required setpoint tolerance specified, **AND**

INITIAL and **DATE** in the spaces allocated.
(**Acc Crit 5.2[7]**) _____

Date _____

7.0 POST PERFORMANCE ACTIVITY

[1] **VERIFY** copies of the Eagle Surveillance Instruction printouts and applicable data sheets from completed SIs/IMIs/WOs used to verify setpoints have been attached to this instruction and logged in Table 2. _____

[2] **NOTIFY** the US/SRO of the test completion. _____

8.0 RECORDS

A. QA Records

Completed Test Package (PTI)

B. Non-QA Records

None

Appendix A
(Page 1 of 1)

Test Procedures / Instructions Reference Review

Date _____

NOTES

1) Additional copies of this table may be made as necessary.
2) Initial and date indicates review has been completed for impact.

PROCEDURE/ INSTRUCTION	REVISION/CHANGES	IMPACT Yes/No	INITIAL AND DATE. (N/A for no change)
U2 FSAR Table 14.2.1 Section 7.2 Section 7.3			
PTI-99-06			
2-TSD-99-06			
WBN2-99-4003			
WBN2-47-4002			

Table 1
(Page 1 of 5)

Plant Instruction and PTI Verification of JTG Concurrence

Date _____

Plant Instruction/PTI	JTG Meeting Number	Initial
2-SI-1-1		
2-SI-1-2		
2-SI-1-3		
2-SI-1-4		
2-SI-1-5		
2-SI-1-6		
2-SI-1-7		
2-SI-1-8		
2-SI-1-9		
2-SI-1-10		
2-SI-1-11		
2-SI-1-12		
2-SI-1-72		
2-SI-1-73		
2-SI-3-1		
2-SI-3-2		
2-SI-3-3		
2-SI-3-4		
2-SI-3-5		
2-SI-3-6		

Table 1
(Page 2 of 5)

Plant Instruction and PTI Verification of JTG Concurrence

Date _____

Plant Instruction/PTI	JTG Meeting Number	Initial
2-SI-3-7		
2-SI-3-8		
2-SI-3-9		
2-SI-3-10		
2-SI-3-11		
2-SI-3-12		
2-SI-3-13		
2-SI-3-14		
2-SI-3-15		
2-SI-3-21		
2-SI-3-22		
2-SI-3-25		
2-SI-3-26		
2-SI-3-402		
2-SI-3-403		
2-SI-3-404		
2-SI-3-405		
2-SI-3-406		
2-SI-3-407		
2-SI-30-42		

Table 1
(Page 3 of 5)

Plant Instruction and PTI Verification of JTG Concurrence

Date _____

Plant Instruction/PTI	JTG Meeting Number	Initial
2-SI-30-43		
2-SI-30-44		
2-SI-30-45		
2-SI-63-1		
2-SI-63-2		
2-SI-63-3		
2-SI-63-4		
2-SI-63-50		
2-SI-63-51		
2-SI-63-52		
2-SI-63-53		
2-SI-68-1		
2-SI-68-2		
2-SI-68-3		
2-SI-68-4		
2-SI-68-5		
2-SI-68-6		
2-SI-68-7		
2-SI-68-8		
2-SI-68-9		

Table 1
(Page 4 of 5)

Plant Instruction and PTI Verification of JTG Concurrence

Date _____

Plant Instruction/PTI	JTG Meeting Number	Initial
2-SI-68-10		
2-SI-68-11		
2-SI-68-12		
2-SI-68-13		
2-SI-68-14		
2-SI-68-15		
2-SI-68-16		
2-SI-68-17		
2-SI-68-18		
2-SI-68-19		
2-SI-68-20		
2-SI-68-21		
2-SI-68-22		
2-SI-68-23		
2-SI-68-36		
2-SI-68-37		
2-SI-68-38		
2-SI-68-39		
2-SI-68-40		
2-SI-68-41		

Table 1
(Page 5 of 5)

Plant Instruction and PTI Verification of JTG Concurrence

Date _____

Plant Instruction/PTI	JTG Meeting Number	Initial
2-SI-68-42		
2-SI-68-43		
2-SI-92-31		
2-SI-92-32		
2-SI-92-41		
2-SI-92-42		
2-SI-92-43		
2-SI-92-44		
2-SI-47-28		
2-SI-47-73		
2-SI-47-74		
2-SI-47-75		
2-SI-99-10-A		
2-SI-99-10-B		
2-PTI-99-05		
2-ATI-047A-02		
SSD-2-LPP-2-1		
SSD-2-LPP-2-7		
WO 113725926 (CTN 2-001-12296-IU1-000)		
2-47A630-98-205		

Data Sheet 1
(Page 1 of 2)

Power Range High Neutron Flux Trip Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[1]	Power Range High Flux Low Setpoint	2-INS-92-1NC/305-D (NC-4IP)	25% RTP (2.083 VDC) INCR	24.4 to 25.6% RTP (2.033 to 2.133 VDC)		2-SI-92-41		
6.1[1]		2-INS-92-2NC/305-E (NC-42P)	25% RTP (2.083 VDC) INCR	24.4 to 25.6% RTP (2.033 to 2.133 VDC)		2-SI-92-42		
6.1[1]		2-INS-92-3NC/305-F (NC-43P)	25% RTP (2.083 VDC) INCR	24.4 to 25.6% RTP (2.033 to 2.133 VDC)		2-SI-92-43		
6.1[1]		2-INS-92-4NC/305-G (NC-44P)	25% RTP (2.083 VDC) INCR	24.4 to 25.6% RTP (2.033 to 2.133 VDC)		2-SI-92-44		

Data Sheet 1
(Page 2 of 2)

Power Range High Neutron Flux Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[1]	Power Range High Flux High Setpoint	2-INS-92-1NC/306-D (NC-4IR)	109% RTP (9.083 VDC) INCR	108.4 to 109.6 % RTP (9.033 to 9.133 VDC)		2-SI-92-41		
6.1[1]		2-INS-92-2NC/306-E (NC-42R)	109% RTP (9.083 VDC) INCR	108.4 to 109.6 % RTP (9.033 to 9.133 VDC)		2-SI-92-42		
6.1[1]		2-INS-92-3NC/306-F (NC-43R)	109% RTP (9.083 VDC) INCR	108.4 to 109.6 % RTP (9.033 to 9.133 VDC)		2-SI-92-43		
6.1[1]		2-INS-92-4NC/306-G (NC-44R)	109% RTP (9.083 VDC) INCR	108.4 to 109.6 % RTP (9.033 to 9.133 VDC)		2-SI-92-44		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 2
(Page 1 of 1)

Intermediate Range High Neutron Flux Trip Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[2]	High Flux TRIP	2-NI-92-135-D	25% RTP (9.398 VDC) INCR	23.4 to 26.7% RTP (9.370 to 9.426 VDC)		2-SI-92-31		
6.1[2]	High Flux TRIP	2-NI-92-136-E	25% RTP (9.398 VDC) INCR	23.4 to 26.7% RTP (9.370 to 9.426 VDC)		2-SI-92-32		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 3
(Page 1 of 1)

Source Range High Neutron Flux Trip Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Set Point Action	Tolerance	Actual Set Point Action	Instruction	Work PKG NO.	Initial/Date
6.1[3]	Source Range High Flux TRIP	2-NI-92-131-D	10^5 CPS (10.0 VDC) INCR	9.973 to 10.027 VDC		2-SI-92-31		
6.1[3]		2-NI-92-132-E	10^5 CPS (10.0 VDC) INCR	9.973 to 10.027 VDC		2-SI-92-32		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 4
(Page 1 of 2)

Power Range High Positive Neutron Flux Rate Trip Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[4]	Power Range Positive Rate	2-INS-92-1NC/303-D (NC-41U)	+5% RTP INCR	4.4 to 5.6 % RTP		2-SI-92-41		
6.1[4]		2-INS-92-2NC/303-E (NC-42U)	+5% RTP INCR	4.4 to 5.6 % RTP		2-SI-92-42		
6.1[4]		2-INS-92-3NC/303-F (NC-43U)	+5% RTP INCR	4.4 to 5.6 % RTP		2-SI-92-43		
6.1[4]		2-INS-92-4NC/303-G (NC-44U)	+5% RTP INCR	4.4 to 5.6 % RTP		2-SI-92-44		

Data Sheet 4
(Page 2 of 2)

Power Range High Positive Neutron Flux Rate Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[4]	Impulse Unit Time Constant	2-INM-92-1NM/311-D (NM-41J)	2.4 SEC	2.2 -2.6 SEC		2-SI-92-41		
6.1[4]		2-INM-92-2NM/311-E (NM-42J)	2.4 SEC	2.2 -2.6 SEC		2-SI-92-42		
6.1[4]		2-INM-92-3NM/311-F (NM-43J)	2.4 SEC	2.2 -2.6 SEC		2-SI-92-43		
6.1[4]		2-INM-92-4NM/311-G (NM-44J)	2.4 SEC	2.2 -2.6 SEC		2-SI-92-44		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 5
(Page 1 of 30)

Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances if applicable.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Setpoint Action recorded for Eagle outputs are actual minimum and maximum values.
4) Actual Setpoint Action recorded for Eagle may have co-processor floating point calculation roundoff (i.e., 588.2 F may be presented as 588.1999 which is acceptable).
5) The K5 and K6 gains are set to 0.0 at specific Tavg conditions by logic internal to the Eagle-21 system and are not user entered setpoints.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]	Delta T T_{avg} Channel I	Delta T0	51 °F	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		T_{avg} 0 Full OTSP	588.2 °F	NO DEVIATION ALLOWED		2-SI-68-1		

Data Sheet 5
(Page 2 of 30)

Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		T_{avg} 1 Full OPSP	588.2 °F	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		F2 (DI) W	0.0	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		F2 (DI) F	0.0 PU	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		F2 (DI) I	0.0 PU	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		F2 (DI) H	0.0	NO DEVIATION ALLOWED		2-SI-68-1		

Data Sheet 5
(Page 3 of 30)

Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		F2 (DI) V	-0.01 /PU	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		F2 (DI) J	0.01 /PU	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		F1 (DI) Q	0.7336	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		F1 (DI) A	-22.0 PU	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		F1 (DI) D	10.0 PU	NO DEVIATION ALLOWED		2-SI-68-1		

Data Sheet 5
(Page 4 of 30)

Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		F1 (DI) C	0.49	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		F1 (DI) B	-0.0262 /PU	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		F1 (DI) N	0.0196 /PU	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		Tau 1 Lead T_{avg}	33.0 SEC	32.67 to 33.33 SEC		2-SI-68-1		
6.1[5]		Tau 2 Lag T_{avg}	4.0 SEC	3.96 to 4.04 SEC		2-SI-68-1		
6.1[5]		Tau 3 Rate T_{avg}	5.0 SEC	4.95 to 5.05 SEC		2-SI-68-1		

Data Sheet 5
(Page 5 of 30)

Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		Tau 4 Lead Delta T	3.0 SEC	2.97 to 3.03 SEC		2-SI-68-1		
6.1[5]		Tau 5 Lag Delta T	3.0 SEC	2.97 to 3.03 SEC		2-SI-68-1		
6.1[5]		Tau 6 Lag T Hot	0.0 SEC	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		Tau 7 Lag T Cold	0.0 SEC	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		Tau 8 Lag Stream	300.0 SEC	297.0 to 303.0 SEC		2-SI-68-1		
6.1[5]		K1 OTSP	1.16	NO DEVIATION ALLOWED		2-SI-68-1		

Data Sheet 5
(Page 6 of 30)

Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		K2 OTSP	0.0183 /°F	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		K3 OTSP	0.0009 / PSIG	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		K4 OPSP	1.10	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		K5 OPSP (Note 5)	0.02 /°F	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		K6 OPSP (Note 5)	0.00162 /°F	NO DEVIATION ALLOWED		2-SI-68-1		

Data Sheet 5
(Page 7 of 30)

Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		P0 OTSP	2235.0 PSIG	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		DELTAH RSA	8.0 °F	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		DELTAC RSA	2.5 °F	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		S1 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		S2 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-68-1		

Data Sheet 5
(Page 8 of 30)

Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		S3 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		SCAL FLUX CALIB	1.8	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]		PLOW STRM CAL THR	0.5	NO DEVIATION ALLOWED		2-SI-68-1		
6.1[5]	Lo T_{avg} (FW Isol)	2-TS-68-2K (TB-412G)	564.0 °F DEEN DECR	563.77 to 564.23 °F		2-SI-68-1		
6.1[5]	Delta T T_{avg} OTDT Trip	2-TS-68-2D (TB-411C)	0.00 PU DEEN INCR	-0.84 to 0.84 PU		2-SI-68-1		
6.1[5]	Delta T T_{avg} OPDT Trip	TS-68-2G (TB-411G)	0.00 PU DEEN INCR	-0.54 to 0.54 PU		2-SI-68-1		

Data Sheet 5
(Page 9 of 30)

Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]	Delta T T_{avg} Channel II	Delta T0	51 °F	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		T_{avg} 0 Full OTSP	588.2 °F	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		T_{avg} 1 Full OPSP	588.2 °F	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		F2 (DI) W	0.0	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		F2 (DI) F	0.0 PU	NO DEVIATION ALLOWED		2-SI-68-2		

Data Sheet 5
(Page 10 of 30)

Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		F2 (DI) I	0.0 PU	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		F2 (DI) H	0.0	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		F2 (DI) V	- 0.01 /PU	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		F2 (DI) J	0.01 /PU	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		F1 (DI) Q	0.7336	NO DEVIATION ALLOWED		2-SI-68-2		

Data Sheet 5
(Page 11 of 30)

Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		F1 (DI) A	- 22.0 PU	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		F1 (DI) D	10.0 PU	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		F1 (DI) C	0.49	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		F1 (DI) B	- 0.0262 /PU	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		F1 (DI) N	0.0196 /PU	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		Tau 1 Lead T_{avg}	33.0 SEC	32.67 to 33.33 SEC		2-SI-68-2		

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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		Tau 2 Lag T_{avg}	4.0 SEC	3.96 to 4.04 SEC		2-SI-68-2		
6.1[5]		Tau 3 Rate T_{avg}	5.0 SEC	4.95 to 5.05 SEC		2-SI-68-2		
6.1[5]		Tau 4 Lead Delta T	3.0 SEC	2.97 to 3.03 SEC		2-SI-68-2		
6.1[5]		Tau 5 Lag Delta T	3.0 SEC	2.97 to 3.03 SEC		2-SI-68-2		
6.1[5]		Tau 6 Lag T Hot	0.0 SEC	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		Tau 7 Lag T Cold	0.0 SEC	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		Tau 8 Lag Stream	300.0 SEC	297.0 to 303.0 SEC		2-SI-68-2		

Data Sheet 5
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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		K1 OTSP	1.16	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		K2 OTSP	0.0183 /°F	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		K3 OTSP	0.0009 / PSIG	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		K4 OPSP	1.10	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		K5 OPSP (Note 5)	0.02 /°F	NO DEVIATION ALLOWED		2-SI-68-2		

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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		K6 OPSP (Note 5)	0.00162 /°F	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		P0 OTSP	2235.0 PSIG	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		DELTAH RSA	8.0 °F	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		DELTAC RSA	2.5 °F	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		S1 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-68-2		

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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		S2 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		S3 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		SCAL FLUX CALIB	1.80	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]		PLOW STRM CAL THR	0.5	NO DEVIATION ALLOWED		2-SI-68-2		
6.1[5]	Lo T_{avg} (FW Isol)	2-TS-68-25K (TB-422G)	564.0 °F DEEN DECR	563.77 to 564.23 °F		2-SI-68-2		
6.1[5]	Delta T T_{avg} OTDT Trip	2-TS-68-25D (TB-421C)	0.00 PU DEEN INCR	-0.84 to 0.84 PU		2-SI-68-2		

Data Sheet 5
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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]	Delta T T_{avg} OPDT Trip	2-TS-68-25G (TB-421G)	0.00 PU DEEN INCR	-0.54 to 0.54 PU		2-SI-68-2		
6.1[5]	Delta T T_{avg} Channel III	Delta T0	51 °F	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		T_{avg} 0 Full OTSP	588.2 °F	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		T_{avg} 1 Full OPSP	588.2 °F	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		F2 (DI) W	0.0	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		F2 (DI) F	0.0 PU	NO DEVIATION ALLOWED		2-SI-68-3		

Data Sheet 5
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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		F2 (DI) I	0.0 PU	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		F2 (DI) H	0.0	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		F2 (DI) V	- 0.01 /PU	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		F2 (DI) J	0.01 /PU	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		F1 (DI) Q	0.7336	NO DEVIATION ALLOWED		2-SI-68-3		

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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		F1 (DI) A	- 22.0 PU	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		F1 (DI) D	10.0 PU	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		F1 (DI) C	0.49	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		F1 (DI) B	- 0.0262 /PU	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		F1 (DI) N	0.0196 /PU	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		Tau 1 Lead T_{avg}	33.0 SEC	32.67 to 33.33 SEC		2-SI-68-3		

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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		Tau 2 Lag T_{avg}	4.0 SEC	3.96 to 4.04 SEC		2-SI-68-3		
6.1[5]		Tau 3 Rate T_{avg}	5.0 SEC	4.95 to 5.05 SEC		2-SI-68-3		
6.1[5]		Tau 4 Lead Delta T	3.0 SEC	2.97 to 3.03 SEC		2-SI-68-3		
6.1[5]		Tau 5 Lag Delta T	3.0 SEC	2.97 to 3.03 SEC		2-SI-68-3		
6.1[5]		Tau 6 Lag T Hot	0.0 SEC	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		Tau 7 Lag T Cold	0.0 SEC	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		Tau 8 Lag Stream	300.0 SEC	297.0 to 303.0 SEC		2-SI-68-3		

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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		K1 OTSP	1.16	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		K2 OTSP	0.0183 /°F	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		K3 OTSP	0.0009 / PSIG	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		K4 OPSP	1.10	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		K5 OPSP (Note 5)	0.02 /°F	NO DEVIATION ALLOWED		2-SI-68-3		

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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		K6 OPSP (Note 5)	0.00162 /°F	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		P0 OTSP	2235.0 PSIG	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		DELTAH RSA	8.0 °F	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		DELTAC RSA	2.5 °F	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		S1 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-68-3		

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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		S2 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		S3 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		SCAL FLUX CALIB	1.8	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]		PLOW STRM CAL THR	0.5	NO DEVIATION ALLOWED		2-SI-68-3		
6.1[5]	Lo T_{avg} (FW Isol)	2-TS-68-44K (TB-432G)	564.0 °F DEEN DECR	563.77 to 564.23 °F		2-SI-68-3		
6.1[5]	Delta T T_{avg} OTDT Trip	2-TS-68-44D (TB-431C)	0.00 PU DEEN INCR	-0.84 to 0.84 PU		2-SI-68-3		

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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]	Delta T T_{avg} OPDT Trip	2-TS-68-44G (TB-431G)	0.00 PU DEEN INCR	-0.54 to 0.54 PU		2-SI-68-3		
6.1[5]	Delta T T_{avg} Channel IV	Delta T0	51 °F	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		T_{avg} 0 Full OTSP	588.2 °F	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		T_{avg} 1 Full OPSP	588.2 °F	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		F2 (DI) W	0.0000	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		F2 (DI) F	0.0 PU	NO DEVIATION ALLOWED		2-SI-68-4		

Data Sheet 5
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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		F2 (DI) I	0.0 PU	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		F2 (DI) H	0.0	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		F2 (DI) V	- 0.01 /PU	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		F2 (DI) J	0.01 /PU	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		F1 (DI) Q	0.7336	NO DEVIATION ALLOWED		2-SI-68-4		

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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		F1 (DI) A	- 22.0 PU	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		F1 (DI) D	10.0 PU	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		F1 (DI) C	0.49	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		F1 (DI) B	- 0.0262 /PU	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		F1 (DI) N	0.0196 /PU	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		Tau 1 Lead T_{avg}	33.0 SEC	32.67 to 33.33 SEC		2-SI-68-4		

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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		Tau 2 Lag T_{avg}	4.0 SEC	3.96 to 4.04 SEC		2-SI-68-4		
6.1[5]		Tau 3 Rate T_{avg}	5.0 SEC	4.95 to 5.05 SEC		2-SI-68-4		
6.1[5]		Tau 4 Lead Delta T	3.0 SEC	2.97 to 3.03 SEC		2-SI-68-4		
6.1[5]		Tau 5 Lag Delta T	3.0 SEC	2.97 to 3.03 SEC		2-SI-68-4		
6.1[5]		Tau 6 Lag T Hot	0.0 SEC	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		Tau 7 Lag T Cold	0.0 SEC	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		Tau 8 Lag Stream	300.0 SEC	297.0 to 303.0 SEC		2-SI-68-4		

Data Sheet 5
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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		K1 OTSP	1.16	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		K2 OTSP	0.0183 /°F	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		K3 OTSP	0.0009 / PSIG	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		K4 OPSP	1.10	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		K5 OPSP (Note 5)	0.02 /°F	NO DEVIATION ALLOWED		2-SI-68-4		

Data Sheet 5
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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		K6 OPSP (Note 5)	0.00162 /°F	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		P0 OTSP	2235.0 PSIG	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		DELTAH RSA	8.0 °F	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		DELTAC RSA	2.5 °F	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		S1 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-68-4		

Data Sheet 5
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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]		S2 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		S3 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		SCAL FLUX CALIB	1.80	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]		PLOW STRM CAL THR	0.5	NO DEVIATION ALLOWED		2-SI-68-4		
6.1[5]	Lo T_{avg} (FW Isol)	2-TS-68-67K (TB-442G)	564.0 °F DEEN DECR	563.77 to 564.23 °F		2-SI-68-4		
6.1[5]	Delta T T_{avg} OTDT Trip	2-TS-68-67D (TB-441C)	0.00 PU DEEN INCR	-0.84 to 0.84 PU		2-SI-68-4		

Data Sheet 5
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Overtemperature/Overpower Delta T Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[5]	Delta T T_{avg} OPDT Trip	2-TS-68-67G (TB-441G)	0.00 PU DEEN INCR	-0.54 to 0.54 PU		2-SI-68-4		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 6
(Page 1 of 3)

Pressurizer Low Pressure Trip Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Setpoints recorded for Eagle outputs are actual minimum and maximum values.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[6]	Pressurizer Low Pressure Trip	2-PS-68-340E (PB-455C)	1970 PSIG DECR	1968.4 to 1971.6 PSIG		2-SI-68-5		
6.1[6]		2-PS-68-334E (PB-456C)	1970 PSIG DECR	1968.4 to 1971.6 PSIG		2-SI-68-6		
6.1[6]		2-PS-68-323E (PB-457C)	1970 PSIG DECR	1968.4 to 1971.6 PSIG		2-SI-68-7		
6.1[6]		2-PS-68-322E (PB-458C)	1970 PSIG DECR	1968.4 to 1971.6 PSIG		2-SI-68-8		

Data Sheet 6
(Page 2 of 3)

Pressurizer Low Pressure Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[6]	P-455 Lead Time Constant	Tau 1 Pzr Press Lead	12 SEC	11.88 to 12.12 SEC		2-SI-68-5		
6.1[6]	P-455 Lag Time Constant	Tau 2 Pzr Press Lag	2 SEC	1.98 to 2.02 SEC		2-SI-68-5		
6.1[6]	P-456 Lead Time Constant	Tau 1 Pzr Press Lead	12 SEC	11.88 to 12.12 SEC		2-SI-68-6		
6.1[6]	P-456 Lag Time Constant	Tau 2 Pzr Press Lag	2 SEC	1.98 to 2.02 SEC		2-SI-68-6		
6.1[6]	P-457 Lead Time Constant	Tau 1 Pzr Press Lead	12 SEC	11.88 to 12.12 SEC		2-SI-68-7		

Data Sheet 6
(Page 3 of 3)

Pressurizer Low Pressure Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[6]	P-457 Lag Time Constant	Tau 2 Pzr Press Lag	2 SEC	1.98 to 2.02 SEC		2-SI-68-7		
6.1[6]	P-458 Lead Time Constant	Tau 1 Pzr Press Lead	12 SEC	11.88 to 12.12 SEC		2-SI-68-8		
6.1[6]	P-458 Lag Time Constant	Tau 2 Pzr Press Lag	2 SEC	1.98 to 2.02 SEC		2-SI-68-8		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 7
(Page 1 of 1)

Pressurizer High Pressure Trip Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Setpoints recorded for Eagle outputs are actual minimum and maximum values.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG	Initial/Date
6.1[7]	Pressurizer High Pressure Trip	2-PS-68-340A (PB-455A)	2385 PSIG INCR	2383.4 to 2386.6 PSIG		2-SI-68-5		
6.1[7]		2-PS-68-334A (PB-456A)	2385 PSIG INCR	2383.4 to 2386.6 PSIG		2-SI-68-6		
6.1[7]		2-PS-68-323A (PB-457A)	2385 PSIG INCR	2383.4 to 2386.6 PSIG		2-SI-68-7		
6.1[7]		2-PS-68-322A (PB-458A)	2385 PSIG INCR	2383.4 to 2386.6 PSIG		2-SI-68-8		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 8
(Page 1 of 1)

Pressurizer High Water Level Trip Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be with the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Setpoints recorded for Eagle outputs are actual minimum and maximum values.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG and/or RIMS NO.	Initial/Date
6.1[8]	Pressurizer High Level Trip	2-LS-68-339A (LB-459A)	92% INCR	91.8 to 92.2 %		2-SI-68-9		
6.1[8]		2-LS-68-335A (LB-460A)	92% INCR	91.8 to 92.2 %		2-SI-68-10		
6.1[8]		2-LS-68-320A (LB-461A)	92% INCR	91.8 to 92.2 %		2-SI-68-11		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 9
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Low Reactor Coolant Flow Trip Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be with the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Setpoints recorded for Eagle outputs are actual minimum and maximum values.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[9]	Reactor Coolant System Low Flow Loop 1	2-FS-68-6A (FB-414A)	90% Flow 66.94% DP DECR	66.76 to 67.12 % DP		2-SI-68-12		
6.1[9]		2-FS-68-6B (FB-415A)	90% Flow 66.94% DP DECR	66.76 to 67.12 % DP		2-SI-68-13		
6.1[9]		2-FS-68-6D (FB-416A)	90% Flow 66.94% DP DECR	66.76 to 67.12 % DP		2-SI-68-14		

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(Page 2 of 4)

Low Reactor Coolant Flow Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[9]	Reactor Coolant System Low Flow Loop 2	2-FS-68-29A (FB-424A)	90% Flow 66.94% DP DECR	66.76 to 67.12 % DP		2-SI-68-15		
6.1[9]		2-FS-68-29B (FB-425A)	90% Flow 66.94% DP DECR	66.76 to 67.12 % DP		2-SI-68-16		
6.1[9]		2-FS-68-29D (FB-426A)	90% Flow 66.94% DP DECR	66.76 to 67.12 % DP		2-SI-68-17		
6.1[9]	Reactor Coolant System Low Flow Loop 3	2-FS-068-48A (FB-434A)	90% Flow 66.94% DP DECR	66.76 to 67.12 % DP		2-SI-68-18		

Data Sheet 9
(Page 3 of 4)

Low Reactor Coolant Flow Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[9]		2-FS-068-48B (FB-435A)	90% Flow 66.94% DP DECR	66.76 to 67.12 % DP		2-SI-68-19		
6.1[9]		2-FS-068-48D (FB-436A)	90% Flow 66.94% DP DECR	66.76 to 67.12 % DP		2-SI-68-20		
6.1[9]	Reactor Coolant System Low Flow Loop 4	2-FS-068-71A (FB-444A)	90% Flow 66.94% DP DECR	66.76 to 67.12 % DP		2-SI-68-21		
6.1[9]		2-FS-068-71B (FB-445A)	90% Flow 66.94% DP DECR	66.76 to 67.12 % DP		2-SI-68-22		
6.1[9]		2-FS-068-71D (FB-446A)	90% Flow 66.94% DP DECR	66.76 to 67.12 % DP		2-SI-68-23		

Data Sheet 9
(Page 4 of 4)

Low Reactor Coolant Flow Trip Setpoint Verification

Date _____

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 10
(Page 1 of 2)

Reactor Coolant Pump Undervoltage Trip Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[10]	RCP Undervoltage Trip Pump 1	2-27-68-8A	90 VAC DECR	89.0 to 91.0 VAC		2-SI-68-40		
6.1[10]	Total Time Delay	2-62-68-8	0.431 SEC	0.384 to 0.478 SEC		2-SI-68-40		
6.1[10]	Pump 2	2-27-68-31A	90 VAC DECR	89.0 to 91.0 VAC		2-SI-68-41		
6.1[10]		2-62-68-31	0.431 SEC	0.384 to 0.478 SEC		2-SI-68-41		
6.1[10]	Pump 3	2-27-68-50A	90 VAC DECR	89.0 to 91.0 VAC		2-SI-68-42		

Data Sheet 10
(Page 2 of 2)

Reactor Coolant Pump Undervoltage Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[10]		2-62-68-50	0.431 SEC	0.384 to 0.478 SEC		2-SI-68-42		
6.1[10]	Pump 4	2-27-68-73A	90 VAC DECR	89.0 to 91.0 VAC		2-SI-68-43		
6.1[10]		2-62-68-73	0.431 SEC	0.384 to 0.478 SEC		2-SI-68-43		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 11
(Page 1 of 2)

Reactor Coolant Pump Underfrequency Trip Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Setpoints recorded for Eagle outputs are actual minimum and maximum values.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[11]	RCP Under-frequency TRIP Pump 1	2-81-68-8	57.5 Hertz DECR	57.45 to 57.55 Hertz		2-SI-68-36		
6.1[11]		Time Delay	0.14 SEC (8 Cycles)	0.1 to 0.19 SEC (6 to 11 Cycles)		2-SI-68-36		
6.1[11]	Pump 2	2-81-68-31	57.5 Hertz DECR	57.45 to 57.55 Hertz		2-SI-68-37		
6.1[11]		Time Delay	0.14 SEC (8 Cycles)	0.1 to 0.19 SEC (6 to 11 Cycles)		2-SI-68-37		

Data Sheet 11
(Page 2 of 2)

Reactor Coolant Pump Underfrequency Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[11]	Pump 3	2-81-68-50	57.5 Hertz DECR	57.45 to 57.55 Hertz		2-SI-68-38		
6.1[11]		Time Delay	0.14 SEC (8 Cycles)	0.1 to 0.19 SEC (6 to 11 Cycles)		2-SI-68-38		
6.1[11]	Pump 4	2-81-68-73	57.5 Hertz DECR	57.45 to 57.55 Hertz		2-SI-68-39		
6.1[11]		Time Delay	0.14 SEC (8 Cycles)	0.1 to 0.19 SEC (6 to 11 Cycles)		2-SI-68-39		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 12
(Page 1 of 13)

Low-Low Steam Generator Water Level Trip and TTD Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances if applicable.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Setpoints recorded for Eagle outputs are actual minimum and maximum values.
4) Actual Setpoint Action recorded for Eagle may have co-processor floating point calculation roundoff (i.e., 588.2 F may be presented as 588.1999 which is acceptable).
5) Delta T0 is set to match Delta T0 in the OTDT/OPDT trip functions and is also set conservatively.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[12]	Lo-Lo SG Water Level Trip & TTDs Channel II	2-LS-3-38B (LB-519B)	17% DECR	16.8 to 17.2%		2-SI-3-13		
6.1[12]		Tau 6 Lag T Hot	0.0 SEC	NO DEVIATION ALLOWED		2-SI-3-13		

Data Sheet 12
(Page 2 of 13)

Low-Low Steam Generator Water Level Trip and TTD Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[12]		Tau 7 Lag T Cold	0.0 SEC	NO DEVIATION ALLOWED		2-SI-3-13		
6.1[12]		S1 Streaming	0.00 °F	NO DEVIATION ALLOWED		2-SI-3-13		
6.1[12]		S2 Streaming	0.00 °F	NO DEVIATION ALLOWED		2-SI-3-13		
6.1[12]		S3 Streaming	0.00 °F	NO DEVIATION ALLOWED		2-SI-3-13		
6.1[12]		DELTAH RSA	8.0 °F	NO DEVIATION ALLOWED		2-SI-3-13		

Data Sheet 12
(Page 3 of 13)

Low-Low Steam Generator Water Level Trip and TTD Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[12]		DELTAC RSA	2.5 °F	NO DEVIATION ALLOWED		2-SI-3-13		
6.1[12]		Delta T0	51.0 °F (Note 5)	NO DEVIATION ALLOWED		2-SI-3-13		
6.1[12]		TTD Coef. A	- 0.0085041 SEC/PU^3	NO DEVIATION ALLOWED		2-SI-3-13		
6.1[12]		TTD Coef. B	0.9266400 SEC/PU^2	NO DEVIATION ALLOWED		2-SI-3-13		
6.1[12]		TTD Coef. C	- 33.85998 SEC/PU	NO DEVIATION ALLOWED		2-SI-3-13		

Data Sheet 12
(Page 4 of 13)

Low-Low Steam Generator Water Level Trip and TTD Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[12]		TTD Coef. D	474.6060 SEC	NO DEVIATION ALLOWED		2-SI-3-13		
6.1[12]		TTD Coef. E	- 0.0047421 SEC/PU^3	NO DEVIATION ALLOWED		2-SI-3-13		
6.1[12]		TTD Coef. F	0.5682600 SEC/PU^2	NO DEVIATION ALLOWED		2-SI-3-13		
6.1[12]		TTD Coef. G	- 23.70753 SEC/PU	NO DEVIATION ALLOWED		2-SI-3-13		
6.1[12]		TTD Coef. H	357.9840 SEC	NO DEVIATION ALLOWED		2-SI-3-13		

Data Sheet 12
(Page 5 of 13)

Low-Low Steam Generator Water Level Trip and TTD Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[12]		TTD Power Hi Limit	50.0 PU	NO DEVIATION ALLOWED		2-SI-3-13		
6.1[12]		2-LS-3-51B (LB-529B)	17% DECR	16.8 to 17.2%		2-SI-3-13		
6.1[12]		2-LS-3-93B (LB-539B)	17% DECR	16.8 to 17.2%		2-SI-3-13		
6.1[12]		2-LS-3-106B (LB-549B)	17% DECR	16.8 to 17.2%		2-SI-3-13		
6.1[12]	Lo-Lo SG Water Level Trip & TTDs Channel III	2-LS-3-39B (LB-518B)	17% DECR	16.8 to 17.2%		2-SI-3-14		
6.1[12]		Tau 6 Lag T Hot	0.0 SEC	NO DEVIATION ALLOWED		2-SI-3-14		

Data Sheet 12
(Page 6 of 13)

Low-Low Steam Generator Water Level Trip and TTD Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[12]		Tau 7 Lag T Cold	0.0 SEC	NO DEVIATION ALLOWED		2-SI-3-14		
6.1[12]		S1 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-3-14		
6.1[12]		S2 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-3-14		
6.1[12]		S3 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-3-14		
6.1[12]		DELTAH RSA	8.0 °F	NO DEVIATION ALLOWED		2-SI-3-14		

Data Sheet 12
(Page 7 of 13)

Low-Low Steam Generator Water Level Trip and TTD Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[12]		DELTAC RSA	2.5 °F	NO DEVIATION ALLOWED		2-SI-3-14		
6.1[12]		Delta T0	51.0 °F (Note 5)	NO DEVIATION ALLOWED		2-SI-3-14		
6.1[12]		TTD Coef. A	- 0.0085041 SEC/PU^3	NO DEVIATION ALLOWED		2-SI-3-14		
6.1[12]		TTD Coef. B	0.9266400 SEC/PU^2	NO DEVIATION ALLOWED		2-SI-3-14		
6.1[12]		TTD Coef. C	- 33.85998 SEC/PU	NO DEVIATION ALLOWED		2-SI-3-14		

Data Sheet 12
(Page 8 of 13)

Low-Low Steam Generator Water Level Trip and TTD Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[12]		TTD Coef. D	474.6060 SEC	NO DEVIATION ALLOWED		2-SI-3-14		
6.1[12]		TTD Coef. E	- 0.0047421 SEC/PU^3	NO DEVIATION ALLOWED		2-SI-3-14		
6.1[12]		TTD Coef. F	0.5682600 SEC/PU^2	NO DEVIATION ALLOWED		2-SI-3-14		
6.1[12]		TTD Coef. G	- 23.70753 SEC/PU	NO DEVIATION ALLOWED		2-SI-3-14		
6.1[12]		TTD Coef. H	357.9840 SEC	NO DEVIATION ALLOWED		2-SI-3-14		

Data Sheet 12
(Page 9 of 13)

Low-Low Steam Generator Water Level Trip and TTD Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[12]		TTD Power Hi Limit	50.0 PU	NO DEVIATION ALLOWED		2-SI-3-14		
6.1[12]		2-LS-3-52B (LB-528B)	17% DECR	16.8 to 17.2%		2-SI-3-14		
6.1[12]		2-LS-3-94B (LB-538B)	17% DECR	16.8 to 17.2%		2-SI-3-14		
6.1[12]		2-LS-3-107B (LB 548B)	17% DECR	16.8 to 17.2%		2-SI-3-14		
6.1[12]	Lo-Lo SG Water Level Trip & TTDs Channel IV	2-LS-3-42B (LB-517B)	17% DECR	16.8 to 17.2%		2-SI-3-15		
6.1[12]		Tau 6 Lag T Hot	0.0 SEC	NO DEVIATION ALLOWED		2-SI-3-15		

Data Sheet 12
(Page 10 of 13)

Low-Low Steam Generator Water Level Trip and TTD Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[12]		Tau 7 Lag T Cold	0.0 SEC	NO DEVIATION ALLOWED		2-SI-3-15		
6.1[12]		S1 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-3-15		
6.1[12]		S2 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-3-15		
6.1[12]		S3 Streaming	0.0 °F	NO DEVIATION ALLOWED		2-SI-3-15		
6.1[12]		DELTAH RSA	8.0 °F	NO DEVIATION ALLOWED		2-SI-3-15		

Data Sheet 12
(Page 11 of 13)

Low-Low Steam Generator Water Level Trip and TTD Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[12]		DELTAC RSA	2.5 °F	NO DEVIATION ALLOWED		2-SI-3-15		
6.1[12]		Delta T0	51.0 °F (Note 5)	NO DEVIATION ALLOWED		2-SI-3-15		
6.1[12]		TTD Coef. A	- 0.0085041 SEC/PU^3	NO DEVIATION ALLOWED		2-SI-3-15		
6.1[12]		TTD Coef. B	0.9266400 SEC/PU^2	NO DEVIATION ALLOWED		2-SI-3-15		
6.1[12]		TTD Coef. C	- 33.85998 SEC/PU	NO DEVIATION ALLOWED		2-SI-3-15		

Data Sheet 12
(Page 12 of 13)

Low-Low Steam Generator Water Level Trip and TTD Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[12]		TTD Coef. D	474.6060 SEC	NO DEVIATION ALLOWED		2-SI-3-15		
6.1[12]		TTD Coef. E	- 0.0047421 SEC/PU^3	NO DEVIATION ALLOWED		2-SI-3-15		
6.1[12]		TTD Coef. F	0.5682600 SEC/PU^2	NO DEVIATION ALLOWED		2-SI-3-15		
6.1[12]		TTD Coef. G	- 23.70753 SEC/PU	NO DEVIATION ALLOWED		2-SI-3-15		
6.1[12]		TTD Coef. H	357.9840 SEC	NO DEVIATION ALLOWED		2-SI-3-15		

Data Sheet 12
(Page 13 of 13)

Low-Low Steam Generator Water Level Trip and TTD Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[12]		TTD Power Hi Limit	50.0 PU	NO DEVIATION ALLOWED		2-SI-3-15		
6.1[12]		2-LS-3-55B (LB-527B)	17% DECR	16.8 to 17.2%		2-SI-3-15		
6.1[12]		2-LS-3-97B (LB-537B)	17% DECR	16.8 to 17.2%		2-SI-3-15		
6.1[12]		2-LS-3-110B (LB-547B)	17% DECR	16.8 to 17.2%		2-SI-3-15		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 13
(Page 1 of 2)

Reactor Trip on Turbine Trip Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[13]	Turbine Stop Valve	2-FCV-1-61 2-ZS-47-28D	0.8 IN OPEN CLOSING	0.55 to 1.05 IN		2-SI-47-28		
6.1[13]		2-FCV-1-64 2-ZS-47-30E	0.8 IN OPEN CLOSING	0.55 to 1.05 IN		2-SI-47-28		
6.1[13]		2-FCV-1-67 2-ZS-47-32	0.8 IN OPEN CLOSING	0.55 to 1.05 IN		2-SI-47-28		
6.1[13]		2-FCV-1-70 2-ZS-47-34	0.8 IN OPEN CLOSING	0.55 to 1.05 IN		2-SI-47-28		
6.1[13]	Low Auto Stop Oil Pressure	2-PS-47-73	45 PSIG DECR	43 to 47 PSIG		2-SI-47-73		

Data Sheet 13
(Page 2 of 2)

Reactor Trip on Turbine Trip Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[13]		2-PS-47-74	45 PSIG DECR	43 to 47 PSIG		2-SI-47-74		
6.1[13]		2-PS-47-75	45 PSIG DECR	43 to 47 PSIG		2-SI-47-75		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 14
(Page 1 of 15)

Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances if applicable.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Setpoints recorded for Eagle outputs are actual minimum and maximum values.
4) P-7 Permissive is a logic combination output of either P-13 (impulse pressure) or P-10 (Power Range) greater than 10% power. See P-13 and P-10 Data Sheets.
5) Actual turbine runback rate less than the provided Tolerance is also acceptable. See WBN2-47-4002.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]	Permissive P-6	2-NI-92-135-D	1.66×10^{-4} %RTP (4.22 VDC) INCR	4.192 to 4.248 VDC		2-SI-92-31		
6.1[14]		2-NI-92-136-E	1.66×10^{-4} %RTP (4.22 VDC) INCR	4.192 to 4.248 VDC		2-SI-92-32		

Data Sheet 14
(Page 2 of 15)

Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]	Permissive P-6 Reset	2-NI-92-135-D	≤ 150 mV below setpoint	Max = Setpoint Min = Setpoint - 150 mV		2-SI-92-31		
6.1[14]		2-NI-92-136-E	≤ 150 mV below setpoint	Max = Setpoint Min = Setpoint - 150 mV		2-SI-92-32		
6.1[14]	P-7 (Note 4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6.1[14]	P-8	2-INS-92-1NC/304-D (NC-41N)	48% RTP INCR (4.000 VDC)	47.4 to 48.6 % RTP (3.95 to 4.05 VDC)		2-SI-92-41		

Data Sheet 14
(Page 3 of 15)

Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]		2-INS-92-2NC/304-E (N42N)	48% RTP INCR (4.000 VDC)	47.4 to 48.6 % RTP (3.95 to 4.05 VDC)		2-SI-92-42		
6.1[14]		2-INS-92-3NC/304-F (NC-43N)	48% RTP INCR (4.000 VDC)	47.4 to 48.6 % RTP (3.95 to 4.05 VDC)		2-SI-92-43		
6.1[14]		2-INS-92-4NC/304-G (NC-44N)	48% RTP INCR (4.000 VDC)	47.4 to 48.6 % RTP (3.95 to 4.05 VDC)		2-SI-92-44		
6.1[14]	P-9	2-INS-92-1NC/307-D (NC-41S)	50% RTP INCR (4.167 VDC)	49.4 to 50.6 % RTP (4.117 to 4.217 VDC)		2-SI-92-41		

Data Sheet 14
(Page 4 of 15)

Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]		2-INS-92-2NC/307-E (NC-42S)	50% RTP INCR (4.167 VDC)	49.4 to 50.6 % RTP (4.117 to 4.217 VDC)		2-SI-92-42		
6.1[14]		2-INS-92-3NC/307-F (NC-43S)	50% RTP INCR (4.167 VDC)	49.4 to 50.6 % RTP (4.117 to 4.217 VDC)		2-SI-92-43		
6.1[14]		2-INS-92-4NC/307-G (NC-44S)	50% RTP INCR (4.167 VDC)	49.4 to 50.6 % RTP (4.117 to 4.217 VDC)		2-SI-92-44		
6.1[14]	P-10	2-INS-92-1NC/308-D (NC-41M)	10% RTP INCR (0.833 VDC)	9.4 to 10.6 %RTP (0.783 to 0.883 VDC)		2-SI-92-41		

Data Sheet 14
(Page 5 of 15)

Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]		2-INS-92-2NC/308-E (NC-42M)	10% RTP INCR (0.833 VDC)	9.4 to 10.6 %RTP (0.783 to 0.883 VDC)		2-SI-92-42		
6.1[14]		2-INS-92-3NC/308-F (NC-43M)	10% RTP INCR (0.833 VDC)	9.4 to 10.6 %RTP (0.783 to 0.883 VDC)		2-SI-92-43		
6.1[14]		2-INS-92-4NC/308-G (NC-44M)	10% RTP INCR (0.833 VDC)	9.4 to 10.6 %RTP (0.783 to 0.883 VDC)		2-SI-92-44		
6.1[14]	P-11	2-PS-68-340B (PB-455B) UNBLOCK	1970 PSIG INCR	1968.4 to 1971.6 PSIG		2-SI-68-5		

Data Sheet 14
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Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]		2-PS-68-340B (PB-455B) BLOCK	1962 PSIG DECR	1960.4 to 1963.6 PSIG		2-SI-68-5		
6.1[14]		2-PS-68-334B (PB-456B) UNBLOCK	1970 PSIG INCR	1968.4 to 1971.6 PSIG		2-SI-68-6		
6.1[14]		2-PS-68-334B (PB-456B) BLOCK	1962 PSIG DECR	1960.4 to 1963.6 PSIG		2-SI-68-6		
6.1[14]		2-PS-68-323B (PB-457B) UNBLOCK	1970 PSIG INCR	1968.4 to 1971.6 PSIG		2-SI-68-7		
6.1[14]		2-PS-68-323B (PB-457B) BLOCK	1962 PSIG DECR	1960.4 to 1963.6 PSIG		2-SI-68-7		

Data Sheet 14
(Page 7 of 15)

Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]	P-12 Lo-Lo Tavg	2-TS-68-2J (TB-412D)	550.0 °F DEEN DECR	549.77 to 550.23 °F		2-SI-68-1		
6.1[14]		2-TS-68-25J (TB-422D)	550.0 °F DEEN DECR	549.77 to 550.23 °F		2-SI-68-2		
6.1[14]		2-TS-68-44J (TB-432D)	550.0 °F DEEN DECR	549.77 to 550.23 °F		2-SI-68-3		
6.1[14]		2-TS-68-67J (TB-442D)	550.0 °F DEEN DECR	549.77 to 550.23 °F		2-SI-68-4		
6.1[14]	P-13 Impulse Press	2-PS-1-73A (PB-505A)	10% Turbine Power (TP) INCR	9.78 to 10.22 % TP		2-SI-1-73		
6.1[14]		2-PS-1-72A (PB-506A)	10% TP INCR	9.78 to 10.22 % TP		2-SI-1-72		

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Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]	P-14	2-LS-3-38A (LB-519A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-1		
6.1[14]		2-LS-3-51A (LB-529A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-4		
6.1[14]		2-LS-3-93A (LB-539A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-7		
6.1[14]		2-LS-3-106A (LB-549A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-10		
6.1[14]		2-LS-3-39A (LB-518A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-2		
6.1[14]		2-LS-3-52A (LB-528A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-5		

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Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]		2-LS-3-94A (LB-538A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-8		
6.1[14]		2-LS-3-107A (LB-548A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-11		
6.1[14]		2-LS-3-42A (LB-517A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-3		
6.1[14]		2-LS-3-55A (LB-527A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-6		
6.1[14]		2-LS-3-97A (LB-537A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-9		
6.1[14]		2-LS-3-110A (LB-547A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-12		

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Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]	C-1 Interlock	2-NI-92-135-D	20% RTP INCR (9.301 VDC)	18.75 to 21.33% RTP (9.273 to 9.329 VDC)		2-SI-92-31		
6.1[14]		2-NI-92-136-E	20% RTP INCR (9.301 VDC)	18.75 to 21.33% RTP (9.273 to 9.329 VDC)		2-SI-92-32		
6.1[14]	C-2	2-INS-92-1NC/302-D (NC-41L)	103% RTP INCR (8.583 VDC)	102.4 to 103.6 % RTP (8.533 to 8.633 VDC)		2-SI-92-41		
6.1[14]		2-INS-92-2NC/302-E (NC-42L)	103% RTP INCR (8.583 VDC)	102.4 to 103.6 % RTP (8.533 to 8.633 VDC)		2-SI-92-42		

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Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]		2-INS-92-3NC/302-F (NC-43L)	103% RTP INCR (8.583 VDC)	102.4 to 103.6 % RTP (8.533 to 8.633 VDC)		2-SI-92-43		
6.1[14]		2-INS-92-4NC/302-G (NC-44L)	103% RTP INCR (8.583 VDC)	102.4 to 103.6 % RTP (8.533 to 8.633 VDC)		2-SI-92-44		
6.1[14]	C-3	2-TS-68-2E (TB-411D)	-1.00 PU DEEN INC	-1.84 to -0.16 PU		2-SI-68-1		
6.1[14]		2-TS-68-25E (TB-421D)	-1.00 PU DEEN INC	-1.84 to -0.16 PU		2-SI-68-2		
6.1[14]		2-TS-68-44E (TB-431D)	-1.00 PU DEEN INC	-1.84 to -0.16 PU		2-SI-68-3		

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Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]		2-TS-68-67E (TB-441D)	-1.00 PU DEEN INC	-1.84 to -0.16 PU		2-SI-68-4		
6.1[14]	C-4	2-TS-68-2F (TB-411H)	-1.00 PU DEEN INC	-1.54 to -0.46 PU		2-SI-68-1		
6.1[14]		2-TS-68-25F (TB-421H)	-1.00 PU DEEN INC	-1.54 to -0.46 PU		2-SI-68-2		
6.1[14]		2-TS-68-44F (TB-431H)	-1.00 PU DEEN INC	-1.54 to -0.46 PU		2-SI-68-3		
6.1[14]		2-TS-68-67F (TB-441H)	-1.00 PU DEEN INC	-1.54 to -0.46 PU		2-SI-68-4		
6.1[14]	Turbine Runback Time Delay ON	2-RLY-99-STDX	1.5 SEC	1.35 to 1.65 SEC		2-PTI-99-05		

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Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]	Turbine Runback Time Delay OFF	2-RLY-99-STDX	28.5 SEC	25.7 to 31.4 SEC		2-PTI-99-05		
6.1[14]	Turbine Load Reference Reduction Rate	N/A	200% / MIN	195-205 %/MIN (Note 5)		2-ATI-047A-02		
6.1[14]	C-5	2-PS-1-73E (PB-505C)	15% Turbine Power (TP) DEEN DECR	14.78 to 15.22 % TP		2-SI-1-73		
6.1[14]	C-7	2-PS-1-72E (PB-506C)	10% TP INCR	9.78 to 10.22% TP		WO 113725926 (CTN 2-001-122 96-IU1-000)		
6.1[14]		LAGTIM	2.00 Min	NO DEVIATION ALLOWED		WO 113725926 (CTN 2-001-122 96-IU1-000)		

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Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]		LGAIN	1.0	NO DEVIATION ALLOWED		WO 113725926 (CTN 2-001-122 96-IU1-000)		
6.1[14]		LLOPT	2	NO DEVIATION ALLOWED		47A630-98-205		
6.1[14]		HSCI1	110%	NO DEVIATION ALLOWED		47A630-98-205		
6.1[14]		LSCI1	0%	NO DEVIATION ALLOWED		47A630-98-205		
6.1[14]	C-9	2-PS-2-1B	13.454 mA DC (6.5 IN Hg Abs) CL DECR	13.428 to 13.480 mA DC		SSD-2-LPP-2-1		

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Reactor Trip System Permissive and Interlock Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.1[14]		2-PS-2-7D	13.454 mA DC (6.5 IN Hg Abs) CL DECR	13.428 to 13.480 mA DC		SSD-2-LPP-2-7		

Recorded By: _____/_____

Verified By: _____/_____

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Low Pressurizer Pressure Safety Injection Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be with the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Setpoints recorded for Eagle outputs are actual minimum and maximum values.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[1]	Low Pressurizer Pressure	2-PS-68-340D (PB-455D)	1870 PSIG DECR	1868.4 to 1871.6 PSIG		2-SI-68-5		
6.2[1]		2-PS-68-334D (PB-456D)	1870 PSIG DECR	1868.4 to 1871.6 PSIG		2-SI-68-6		
6.2[1]		2-PS-68-323D (PB-457D)	1870 PSIG DECR	1868.4 to 1871.6 PSIG		2-SI-68-7		

Recorded By: _____/_____

Verified By: _____/_____

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Low Steamline Pressure Safety Injection and Steamline Isolation Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Set Points recorded for Eagle outputs are actual minimum and maximum values.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[2]	Low Steamline Pressure	2-PS-1-2A (PB-514A)	675 PSIG DECR	672.4 to 677.6 PSIG		2-SI-1-1		
6.2[2]		2-PS-1-2B (PB-515A)	675 PSIG DECR	672.4 to 677.6 PSIG		2-SI-1-2		
6.2[2]		2-PS-1-5A (PB-516A)	675 PSIG DECR	672.4 to 677.6 PSIG		2-SI-1-3		
6.2[2]	Low Pressure Alarm	2-PS-1-5D (PB-516B)	750 PSIG DECR	747.4 to 752.6 PSIG		2-SI-1-3		

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Low Steamline Pressure Safety Injection and Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[2]	Low Steamline Pressure	2-PS-1-9A (PB-524A)	675 PSIG DECR	672.4 to 677.6 PSIG		2-SI-1-4		
6.2[2]		2-PS-1-9B (PB-525A)	675 PSIG DECR	672.4 to 677.6 PSIG		2-SI-1-5		
6.2[2]		2-PS-1-12A (PB-526A)	675 PSIG DECR	672.4 to 677.6 PSIG		2-SI-1-6		
6.2[2]	Low Pressure Alarm	2-PS-1-12D (PB-526B)	750 PSIG DECR	747.4 to 752.6 PSIG		2-SI-1-6		
6.2[2]	Low Steamline Pressure	2-PS-1-20A (PB-534A)	675 PSIG DECR	672.4 to 677.6 PSIG		2-SI-1-7		

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Low Steamline Pressure Safety Injection and Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[2]		2-PS-1-20B (PB-535A)	675 PSIG DECR	672.4 to 677.6 PSIG		2-SI-1-8		
6.2[2]		2-PS-1-23A (PB-536A)	675 PSIG DECR	672.4 to 677.6 PSIG		2-SI-1-9		
6.2[2]	Low Pressure Alarm	2-PS-1-23D (PB-536B)	750 PSIG DECR	747.4 to 752.6 PSIG		2-SI-1-9		
6.2[2]	Low Steamline Pressure	2-PS-1-27A (PB-544A)	675 PSIG DECR	672.4 to 677.6 PSIG		2-SI-1-10		
6.2[2]		2-PS-1-27B (PB-545A)	675 PSIG DECR	672.4 to 677.6 PSIG		2-SI-1-11		

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Low Steamline Pressure Safety Injection and Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[2]		2-PS-1-30A (PB-546A)	675 PSIG DECR	672.4 to 677.6 PSIG		2-SI-1-12		
6.2[2]	Low Pressure Alarm	2-PS-1-30D (PB-546B)	750 PSIG DECR	747.4 to 752.6 PSIG		2-SI-1-12		
6.2[2]	Low Steamline Pressure Lead/Lag Coefficients (P-514)	Tau 1 Lead	50 SEC	49.5 to 50.5 SEC		2-SI-1-1		
6.2[2]		Tau 2 Lag	5 SEC	4.95 to 5.05 SEC		2-SI-1-1		
6.2[2]	Low Steamline Pressure Lead/Lag Coefficients (P-515)	Tau 1 Lead	50 SEC	49.5 to 50.5 SEC		2-SI-1-2		

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Low Steamline Pressure Safety Injection and Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[2]		Tau 2 Lag	5 SEC	4.95 to 5.05 SEC		2-SI-1-2		
6.2[2]	Low Steamline Pressure Lead/Lag Coefficients (P-516)	Tau 1 Lead	50 SEC	49.5 to 50.5 SEC		2-SI-1-3		
6.2[2]		Tau 2 Lag	5 SEC	4.95 to 5.05 SEC		2-SI-1-3		
6.2[2]	Low Steamline Pressure Lead/Lag Coefficients (P-524)	Tau 1 Lead	50 SEC	49.5 to 50.5 SEC		2-SI-1-4		
6.2[2]		Tau 2 Lag	5 SEC	4.95 to 5.05 SEC		2-SI-1-4		

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Low Steamline Pressure Safety Injection and Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[2]	Low Steamline Pressure Lead/Lag Coefficients (P-525)	Tau 1 Lead	50 SEC	49.5 to 50.5 SEC		2-SI-1-5		
6.2[2]		Tau 2 Lag	5 SEC	4.95 to 5.05 SEC		2-SI-1-5		
6.2[2]	Low Steamline Pressure Lead/Lag Coefficients (P-526)	Tau 1 Lead	50 SEC	49.5 to 50.5 SEC		2-SI-1-6		
6.2[2]		Tau 2 Lag	5 SEC	4.95 to 5.05 SEC		2-SI-1-6		

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Low Steamline Pressure Safety Injection and Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[2]	Low Steamline Pressure Lead/Lag Coefficients (P-534)	Tau 1 Lead	50 SEC	49.5 to 50.5 SEC		2-SI-1-7		
6.2[2]		Tau 2 Lag	5 SEC	4.95 to 5.05 SEC		2-SI-1-7		
6.2[2]	Low Steamline Pressure Lead/Lag Coefficients (P-535)	Tau 1 Lead	50 SEC	49.5 to 50.5 SEC		2-SI-1-8		
6.2[2]		Tau 2 Lag	5 SEC	4.95 to 5.05 SEC		2-SI-1-8		

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Low Steamline Pressure Safety Injection and Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[2]	Low Steamline Pressure Lead/Lag Coefficients (P-536)	Tau 1 Lead	50 SEC	49.5 to 50.5 SEC		2-SI-1-9		
6.2[2]		Tau 2 Lag	5 SEC	4.95 to 5.05 SEC		2-SI-1-9		
6.2[2]	Low Steamline Pressure Lead/Lag Coefficients (P-544)	Tau 1 Lead	50 SEC	49.5 to 50.5 SEC		2-SI-1-10		
6.2[2]		Tau 2 Lag	5 SEC	4.95 to 5.05 SEC		2-SI-1-10		

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Low Steamline Pressure Safety Injection and Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[2]	Low Steamline Pressure Lead/Lag Coefficients (P-545)	Tau 1 Lead	50 SEC	49.5 to 50.5 SEC		2-SI-1-11		
6.2[2]		Tau 2 Lag	5 SEC	4.95 to 5.05 SEC		2-SI-1-11		
6.2[2]	Low Steamline Pressure Lead/Lag Coefficients (P-546)	Tau 1 Lead	50 SEC	49.5 to 50.5 SEC		2-SI-1-12		
6.2[2]		Tau 2 Lag	5 SEC	4.95 to 5.05 SEC		2-SI-1-12		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 17
(Page 1 of 1)

Containment High Pressure Safety Injection Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Setpoints recorded for Eagle outputs are actual minimum and maximum values.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[3]	Containment High Pressure	2-PDS-30-42B (PB-934B)	1.5 PSIG INCR	1.466 to 1.534 PSIG		2-SI-30-42		
6.2[3]		2-PDS-30-43B (PB-935B)	1.5 PSIG INCR	1.466 to 1.534 PSIG		2-SI-30-43		
6.2[3]		2-PDS-30-44B (PB-936B)	1.5 PSIG INCR	1.466 to 1.534 PSIG		2-SI-30-44		

Recorded By: _____/_____

Verified By: _____/_____

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Safety Injection Manual Reset Time Delay Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be with the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[4]	Time Delay Block on SI Manual Reset Train A - ON	TD-1	90 SEC	76.5 to 103.5 SEC		2-SI-99-10-A		
6.2[4]	OFF	TD-1	5 SEC	4.25 to 5.75 SEC		2-SI-99-10-A		
6.2[4]	Time Delay Block on SI Manual Reset Train B - ON	TD-1	90 SEC	76.5 to 103.5 SEC		2-SI-99-10-B		
6.2[4]	OFF	TD-1	5 SEC	4.25 to 5.75 SEC		2-SI-99-10-B		

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Safety Injection Manual Reset Time Delay Setpoint Verification

Date _____

Recorded By: _____/_____

Verified By: _____/_____

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High Negative Steamline Pressure Rate Steamline Isolation Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Setpoints recorded for Eagle outputs are actual minimum and maximum values.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[5]	High Negative Rate Steamline Pressure	2-PS-1-2D (PB-514C)	100 PSIG/SEC INCR	97.4 to 102.6 PSIG/SEC		2-SI-1-1		
6.2[5]		2-PS-1-2E (PB-515C)	100 PSIG/SEC INCR	97.4 to 102.6 PSIG/SEC		2-SI-1-2		
6.2[5]		2-PS-1-5B (PB-516C)	100 PSIG/SEC INCR	97.4 to 102.6 PSIG/SEC		2-SI-1-3		
6.2[5]		2-PS-1-9D (PB-524C)	100 PSIG/SEC INCR	97.4 to 102.6 PSIG/SEC		2-SI-1-4		

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High Negative Steamline Pressure Rate Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[5]		2-PS-1-9E (PB-525C)	100 PSIG/SEC INCR	97.4 to 102.6 PSIG/SEC		2-SI-1-5		
6.2[5]		2-PS-1-12B (PB-526C)	100 PSIG/SEC INCR	97.4 to 102.6 PSIG/SEC		2-SI-1-6		
6.2[5]		2-PS-1-20D (PB-534C)	100 PSIG/SEC INCR	97.4 to 102.6 PSIG/SEC		2-SI-1-7		
6.2[5]		2-PS-1-20E (PB-535C)	100 PSIG/SEC INCR	97.4 to 102.6 PSIG/SEC		2-SI-1-8		
6.2[5]		2-PS-1-23B (PB-536C)	100 PSIG/SEC INCR	97.4 to 102.6 PSIG/SEC		2-SI-1-9		

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High Negative Steamline Pressure Rate Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[5]		2-PS-1-27D (PB-544C)	100 PSIG/SEC INCR	97.4 to 102.6 PSIG/SEC		2-SI-1-10		
6.2[5]		2-PS-1-27E (PB-545C)	100 PSIG/SEC INCR	97.4 to 102.6 PSIG/SEC		2-SI-1-11		
6.2[5]		2-PS-1-30B (PB-546C)	100 PSIG/SEC INCR	97.4 to 102.6 PSIG/SEC		2-SI-1-12		
6.2[5]	Rate/Lag Coefficients (P-514)	Tau 3 Rate	50 SEC	49.5 to 50.5 SEC		2-SI-1-1		
6.2[5]		Tau 4 Lag	50 SEC	49.5 to 50.5 SEC		2-SI-1-1		
6.2[5]	Rate/Lag Coefficients (P-515)	Tau 3 Rate	50 SEC	49.5 to 50.5 SEC		2-SI-1-2		

Data Sheet 19
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High Negative Steamline Pressure Rate Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[5]		Tau 4 Lag	50 SEC	49.5 to 50.5 SEC		2-SI-1-2		
6.2[5]	Rate/Lag Coefficients (P-516)	Tau 3 Rate	50 SEC	49.5 to 50.5 SEC		2-SI-1-3		
6.2[5]		Tau 4 Lag	50 SEC	49.5 to 50.5 SEC		2-SI-1-3		
6.2[5]	Rate/Lag Coefficients (P-524)	Tau 3 Rate	50 SEC	49.5 to 50.5 SEC		2-SI-1-4		
6.2[5]		Tau 4 Lag	50 SEC	49.5 to 50.5 SEC		2-SI-1-4		
6.2[5]	Rate/Lag Coefficients (P-525)	Tau 3 Rate	50 SEC	49.5 to 50.5 SEC		2-SI-1-5		

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High Negative Steamline Pressure Rate Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[5]		Tau 4 Lag	50 SEC	49.5 to 50.5 SEC		2-SI-1-5		
6.2[5]	Rate/Lag Coefficients (P-526)	Tau 3 Rate	50 SEC	49.5 to 50.5 SEC		2-SI-1-6		
6.2[5]		Tau 4 Lag	50 SEC	49.5 to 50.5 SEC		2-SI-1-6		
6.2[5]	Rate/Lag Coefficients (P-534)	Tau 3 Rate	50 SEC	49.5 to 50.5 SEC		2-SI-1-7		
6.2[5]		Tau 4 Lag	50 SEC	49.5 to 50.5 SEC		2-SI-1-7		
6.2[5]	Rate/Lag Coefficients (P-535)	Tau 3 Rate	50 SEC	49.5 to 50.5 SEC		2-SI-1-8		

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High Negative Steamline Pressure Rate Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[5]		Tau 4 Lag	50 SEC	49.5 to 50.5 SEC		2-SI-1-8		
6.2[5]	Rate/Lag Coefficients (P-536)	Tau 3 Rate	50 SEC	49.5 to 50.5 SEC		2-SI-1-9		
6.2[5]		Tau 4 Lag	50 SEC	49.5 to 50.5 SEC		2-SI-1-9		
6.2[5]	Rate/Lag Coefficients (P-544)	Tau 3 Rate	50 SEC	49.5 to 50.5 SEC		2-SI-1-10		
6.2[5]		Tau 4 Lag	50 SEC	49.5 to 50.5 SEC		2-SI-1-10		
6.2[5]	Rate/Lag Coefficients (P-545)	Tau 3 Rate	50 SEC	49.5 to 50.5 SEC		2-SI-1-11		

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High Negative Steamline Pressure Rate Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[5]		Tau 4 Lag	50 SEC	49.5 to 50.5 SEC		2-SI-1-11		
6.2[5]	Rate/Lag Coefficients (P-546)	Tau 3 Rate	50 SEC	49.5 to 50.5 SEC		2-SI-1-12		
6.2[5]		Tau 4 Lag	50 SEC	49.5 to 50.5 SEC		2-SI-1-12		

Recorded By: _____/_____

Verified By: _____/_____

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High-High Containment Pressure Containment Isolation Phase B, Containment Spray, and Steamline Isolation Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Setpoints recorded for Eagle outputs are actual minimum and maximum values.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[6]	High-High Containment Pressure	2-PDS-30-42A (PB 934A)	2.8 PSIG INCR	2.766 to 2.834 PSIG		2-SI-30-42		
6.2[6]		2-PDS-30-43A (PB 935A)	2.8 PSIG INCR	2.766 to 2.834 PSIG		2-SI-30-43		
6.2[6]		2-PDS-30-44A (PB 936A)	2.8 PSIG INCR	2.766 to 2.834 PSIG		2-SI-30-44		

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High-High Containment Pressure Containment Isolation Phase B, Containment Spray, and Steamline Isolation Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[6]		2-PDS-30-45A (PB 937A)	2.8 PSIG INCR	2.766 to 2.834 PSIG		2-SI-30-45		

Recorded By: _____/_____

Verified By: _____/_____

Data Sheet 21
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Miscellaneous ESFAS Setpoint Verification

Date _____

NOTES

1) Actual setpoint MUST be within the required setpoint tolerances.
2) Required Setpoint Action and Actual Setpoint Action only applies to trip outputs.
3) Actual Setpoints recorded for Eagle outputs are actual minimum and maximum values.
4) Parameter is MFPT Governor Valve Positioner Oil Pressure.

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[7]	North MSV Vault Room Water Level High	2-LS-3-405	4" Above Floor INCR	3.75 to 4.25 IN		2-SI-3-405		
6.2[7]		2-LS-3-406	4" Above Floor INCR	3.75 to 4.25 IN		2-SI-3-406		
6.2[7]		2-LS-3-407	4" Above Floor INCR	3.75 to 4.25 IN		2-SI-3-407		

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Miscellaneous ESFAS Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[7]	South MSV Vault Room Water Level High	2-LS-3-402	4" Above Floor INCR	3.75 to 4.25 IN		2-SI-3-402		
6.2[7]		2-LS-3-403	4" Above Floor INCR	3.75 to 4.25 IN		2-SI-3-403		
6.2[7]		2-LS-3-404	4" Above Floor INCR	3.75 to 4.25 IN		2-SI-3-404		
6.2[7]	RWST Level Auto Recirc & Alarm	2-LS-63-50A (LB-913A)	158.0 IN WC (34.6%) DECR	157.128 to 158.676 IN WC 34.4 to 34.8%		2-SI-63-50		
6.2[7]		2-LS-63-51A (LB-914A)	158.0 IN WC (34.6%) DECR	157.128 to 158.676 IN WC 34.4 to 34.8%		2-SI-63-51		

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Miscellaneous ESFAS Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[7]		2-LS-63-52A (LB-915A)	158.0 IN WC (34.6%) DECR	157.128 to 158.676 IN WC 34.4 to 34.8%		2-SI-63-52		
6.2[7]		2-LS-63-53A (LB-916A)	158.0 IN WC (34.6%) DECR	157.128 to 158.676 IN WC 34.4 to 34.8%		2-SI-63-53		
6.2[7] RWST Alarm	RWST Level Lo-Lo Alarm 2-XA-55-6C-126D	2-LS-63-50B (LB-913B)	52.4 IN 7.34% 5.17 mAdc DECR	51.632 to 53.180 IN WC 7.14 to 7.54 % 5.142 mAdc to 5.206 mAdc		2-SI-63-50		

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Miscellaneous ESFAS Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[7]		2-LS-63-51B (LB-914B)	52.4 IN 7.34% 5.17 mAdc DECR	51.632 to 53.180 IN WC 7.14 to 7.54 % 5.142 mAdc to 5.206 mAdc		2-SI-63-51		
6.2[7]		2-LS-63-52B (LB-915B)	52.4 IN 7.34% 5.17 mAdc DECR	51.632 to 53.180 IN WC 7.14 to 7.54 % 5.142 mAdc to 5.206 mAdc		2-SI-63-52		
6.2[7]		2-LS-63-53B (LB-916B)	52.4 IN 7.34% 5.17 mAdc DECR	51.632 to 53.180 IN WC 7.14 to 7.54 % 5.142 mAdc to 5.206 mAdc		2-SI-63-53		

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Miscellaneous ESFAS Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[7]	Containment Sump Level High - RWST Swapover	2-LS-63-180 (LB-920A)	38.2 IN 16.1% INCR	37.8 to 38.6 IN 15.9 to 16.3%		2-SI-63-1		
6.2[7]		2-LS-63-181 (LB-921A)	38.2 IN 16.1% INCR	37.8 to 38.6 IN 15.9 to 16.3%		2-SI-63-2		
6.2[7]		2-LS-63-182 (LB-940A)	38.2 IN 16.1% INCR	37.8 to 38.6 IN 15.9 to 16.3%		2-SI-63-3		
6.2[7]		2-LS-63-183 (LB-941A)	38.2 IN 16.1% INCR	37.8 to 38.6 IN 15.9 to 16.3%		2-SI-63-4		
6.2[7]	Auxiliary Feedwater Pump Actuation	2-PS-46-13	47.7 PSIG Closes on DECR (Note 4)	51.7 to 43.7 PSIG		2-SI-3-25		

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Miscellaneous ESFAS Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[7]	MFWP Turbine Trip	2-PS-46-13	47.7 PSIG Opens on DECR (Note 4)	51.7 to 43.7 PSIG		2-SI-3-25		
6.2[7]	Auxiliary Feedwater Pump Actuation	2-PS-046-40	47.7 PSIG Closes on DECR (Note 4)	51.7 to 43.7 PSIG		2-SI-3-26		
6.2[7]	MFWP Turbine Trip	2-PS-046-40	47.7 PSIG Opens on DECR (Note 4)	51.7 to 43.7 PSIG		2-SI-3-26		
6.2[7]	Auxiliary Feedwater Pump Suction Transfer Train A	2-PS-3-139A	3.42 PSIG CL DECR	3.33 to 3.51 PSIG		2-SI-3-21		
6.2[7]		2-PS-3-139B	3.42 PSIG CL DECR	3.33 to 3.51 PSIG		2-SI-3-21		

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Miscellaneous ESFAS Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[7]		2-PS-3-139D	3.42 PSIG CL DECR	3.33 to 3.51 PSIG		2-SI-3-21		
6.2[7]	Auxiliary Feedwater Pump Suction Transfer Train B	2-PS-3-144A	4.16 PSIG CL DECR	4.07 to 4.25 PSIG		2-SI-3-22		
6.2[7]		2-PS-3-144B	4.95 PSIG CL DECR	4.86 to 5.04 PSIG		2-SI-3-22		
6.2[7]		2-PS-3-144D	4.95 PSIG CL DECR	4.86 to 5.04 PSIG		2-SI-3-22		
6.2[7]	Turbine Trip / Feedwater Isolation-Steam Gen Water Level High	2-LS-3-38A (LB-519A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-1		
6.2[7]		2-LS-3-39A (LB-518A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-2		

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Miscellaneous ESFAS Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[7]		2-LS-3-42A (LB-517A)	82.4% INCR	82.2 to 82.6%		2-SI-3-3		
6.2[7]		2-LS-3-51A (LB-529A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-4		
6.2[7]		2-LS-3-52A (LB-528A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-5		
6.2[7]		2-LS-3-55A (LB-527A)	82.4% INCR	82.2 to 82.6%		2-SI-3-6		
6.2[7]		2-PS-3-93A (LB-539A)	82.4% INCR	82.2 to 82.6%		2-SI-3-7		
6.2[7]		2-LS-3-94A (LB-538A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-8		
6.2[7]		2-LS-3-97A (LB-537A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-9		

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Miscellaneous ESFAS Setpoint Verification

Date _____

Test Sub-Section	Function/ Description	UNID TVA/W	Required Setpoint Action	Tolerance	Actual Setpoint Action	Instruction	Work PKG NO.	Initial/Date
6.2[7]		2-LS-3-106A (LB-549A)	82.4% INCR	82.2 to 82.6%		2-SI-3-10		
6.2[7]		2-LS-3-107A (LB-548A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-11		
6.2[7]		2-LS-3-110A (LB-547A)	82.4% INCR	82.2 to 82.6 %		2-SI-3-12		

Recorded By: _____/_____

Verified By: _____/_____

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Attachment Index

Attachment No.	Attachment Description	No. of Pages