PROCEDURE COVER SHEET

PENNSYLVANIA POWER & LIGHT CO. SUSQUEHANNA STEAM ELECTRIC STATION	
18 MONTH CORE SPRAY SYSTEM AND LOGIC FUNCTION CHECK LOOP B (DIVISION II)	SE-151-002 Revision 5 Page 1 of 82

EFFECTIVE DATE 9/24/90

PERIODIC REVIEW FREQUENCY AND EXPIRATION DATE (check one):

(X) Procedure exempt from periodic review. Procedure will not expire.

( ) Periodic Review Frequency is: NA

Expiration Date: NA

Revised Expiration Dates: _____

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PROCEDURE TYPE (check one): (X) PORC ( ) NON-PORC

REVIEW TYPE (check one):

( ) Expedited Review. PORC Review not required.

(X) Alternate Review. PORC Review not required.

( ) PORC Review. PORC Meeting No. _____

Prepared by Robert Rossiter Date 9-17-90

Reviewed by SDS Responsible Supervisor Date 9/17/90

Recommended George J. Kuczynski Section Head/Manager Date 9-17-90

Approved by J. A. Blakeslee Jr Date 9-18-90

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ATTACHMENTS

1.0 PURPOSE/SCOPE

1.1 To ensure the Div II Core Spray System (CSS) will respond to an initiation signal and carry out the design features of delivering Core Spray from the suppression pool. Initiation logic and operating logic will be confirmed to perform all design safety features. This test is to be performed at least once per 18 months.

1.2 To perform a Div II Core Spray System response time test confirming that the Core Spray System will respond to an actuation signal and develop rated conditions within specified limits at least once per 18 months. Conformance with 27 second requirement is verified in SE-100-001.

1.3 To demonstrate the proper performance of the Unit 1 HPCI Initiation Logic upon detection of a High Drywell Pressure signal.

1.4 This test will not initiate the Diesel Generators, trip the Drywell Cooling Fans, or test the Plant Aux load shed.

2.0 REFERENCES

2.1 Technical Specification 4.3.3.1, Table 4.3.3.1-1.1.d

2.2 Technical Specification 4.3.3.2, Table 4.3.3.1-1.1.a

2.3 Technical Specification 4.3.3.2, Table 4.3.3.1-1.1.b

2.4 Technical Specification 4.3.3.2, Table 4.3.3.1-1.1.c

2.5 Technical Specification 4.3.3.2, Table 4.3.3.1-1.1.d

2.6 Technical Specification 4.3.3.2, Table 4.3.3.1-1.3.b

2.7 Technical Specification 4.3.3.3, Table 3.3.3-3.1.a

2.8 Technical Specification 4.3.3.3, Table 3.3.3-3.1.b

2.9 Technical Specification 4.3.3.3, Table 3.3.3-3.1.c

2.10 Technical Specification 4.5.1.c.1

2.11 Technical Specification 4.7.1.2.b

2.12 Technical Specification 4.6.3.2, Table 3.6.3-1.a

2.13 Technical Specification 3.3.3.b

2.14 Technical Specification 3.5.2.a

2.15 Technical Specification 3.5.2.b

2.16 Technical Specification 3.8.1.1

2.17 Technical Specification 3.8.1.2

2.18 FSAR Section 6.3

2.19 P&ID M-152

2.20 Breaker 1A20205 Connection Diagram 8856-E109-12(62) (FF103090 Sh 1262)

2.21 Breaker 1A20405 Connection Diagram 8856-E109-14(59) (FF103090 Sh 1459)

2.22 Electrical Schematic E-155, Sheets 1,2,3,5,9

2.23 Electrical Schematic E-156, Sheets 2 and 4

2.24 GE Elementary 8856-M1-E21-35(1),(2),(3),(4),(6),(8)

2.25 GE Functional Control Diagram 8856-M1-E21-3

2.26 AD-QA-422 Surveillance Test Program

2.27 OP-151-001 Core Spray System

2.28 SE-100-001 18 Month ECCS Response Time Calculation

2.29 IEEE; STD 603-1980, (Definitions)

2.30 ESW Electrical Schematic E-146 Sh 3

2.31 SE-124-107 DG A and C Auto Start upon LOOP with a LOCA (Division I)

2.32 SE-124-207 DG B and D Auto Start upon LOOP with a LOCA (Division II)

2.33 SE-152-001, 18 Month HPCI System and Logic Function Check

2.34 Electrical Schematic E-102 Sh 32

2.35 HPCI GE Elementary 8856-M1-E41-69(2)(4)(5)(7)(8)

2.36 Electrical Schematic E-184 Sheets 2,4,5,6

2.37 GE Elementary 8856-M1-E21-20(2) and (4)

2.38 GE Elementary 8856-M1-E11-66(3),(6),(8),(9)

2.39 Emerg. Core Clg Benchboard 1C601 Drawing J802 Sheets 4,6,7,8

2.40 GE Panel 1C627 Connection Drawing 8856 M1-H12-134(1),(2)

2.41 Panel 1C236A Connection Drawing E-357 Sheets 5 and 7

2.42 Electrical Schematic E-185 Sh 3,35,39

2.43 Electrical Schematic E-222 Sheet 1

2.44 PLIS 17483 Policy on Control and Verification of Operating Actions

2.45 CL-151-0014 Unit 1 Core Spray System Div 2 Electrical

2.46 CL-151-0015 Unit 1 Core Spray System Div 2 Mechanical

2.47 CL-151-0016 Unit 1 Core Spray System Div 2 Containment

2.48 CL-151-0017 Unit 1 Core Spray System Div 2 Common Electrical

2.49 CL-151-0018 Unit 1 Core Spray System Div 2 Mechanical

2.50 SE-151-001 18 Month Core Spray System and Logic Function Check - Loop B (Division 1)

2.51 SI-151-501 18 Month Core Spray System Logic System Functional Test

2.52 SI-151-431 - 18 Month Time Response Test of Core Spray (CS) Div. 1 Sensor/Trip Relays E21A-K5A, K6A, K7A, K8A, K9A, K19A, K32A, K33A, K100A, K101A, E11A-K47A, K90A, K91A, and K105A (Unit 1)

2.53 SI-151-432 - 18 Month Time Response Test of Core Spray (CS) Div. 2 Sensor/Trip Relays E21A-K5B, K6B, K7B, K8B, K9B, K19B, K32B, K33B, K100B, K101B, E11A-K47B, K90B, K91B and K105B (Unit 1)

2.54 SI-151-411 18 Month Time Response Test of Drywell Pressure High Switch PS-E11-1N011A&C

2.55 SI-151-421 18 Month Time Response Test of Drywell Pressure High Switches PS-E11-1N011B&D

2.56 SI-180-411 18 Month Time Response Test of Reactor Vessel Pressure Switches PS-B21-1N021A,C,E,G

2.57 SI-180-421 18 Month Time Response Test of Reactor Vessel Pressure Switches PIS-B21-1N021B&D

2.58 OP-037-001 Demineralized & Condensate Transfer System

2.59 Unit 2 Technical Specification 4.5.1.e.1

3.0 SPECIAL TOOLS/EQUIPMENT

3.1 Stopwatch (3)

3.2 DC Voltmeter (1)

3.3 ECCS Test Switch (2)

3.4 Jumper with toggle switch (14)

3.5 Maintenance Pages, if available (3)

4.0 PRECAUTIONS

4.1 When visually confirming the status of HMA and/or HFA relays, the contact fingers are pulled in when energized and are pulled away when de-energized.

4.2 Valve stroking and pump breaker operation will be confirmed by the indication on Panel 1C601.

4.3 When attempting to open or close valves, to confirm the valve will not open or close, hold the control switch in the position required for approx. ten (10) seconds to ensure valve will not move.

4.4 All Core Spray Logic is shown on GE Drawings 8856-M1-E21-35 Sheets 1,2,3,4,6,8, except as noted throughout this test.

4.5 Reference Attachment B for HFA and HMA relay connection layout.

5.0 PREREQUISITES AND LIMITATIONS

5.1 No Core Spray initiation signals present. (This is performed by observing the green CORE SPRAY LOOP A(B) INIT SIG RESET HS-E21-1S17A(B) light is off.)

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Confirmed By

5.2 No maintenance or other testing being performed on the Unit 1 Core Spray System and none allowed to start during this test which may affect the performance of this test without test directors concurrence.

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Confirmed By