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Dominion®

AUG 14 2014

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Serial No. 14-107A
NSSL/MAE R0
Docket No. 50-423
License No. NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3
SUPPLEMENTAL INFORMATION TO LICENSE AMENDMENT REQUEST, IMPLEMENTATION OF WCAP-14333 AND WCAP-15376, REACTOR TRIP SYSTEM INSTRUMENTATION AND ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TEST TIMES AND COMPLETION TIMES

By letter dated May 8, 2014, Dominion Nuclear Connecticut, Inc. (DNC) submitted a license amendment request (LAR) for Millstone Power Station Unit 3 (MPS3). The proposed amendment would revise Technical Specifications (TS) 3/4.3.1, "Reactor Trip System Instrumentation," and TS 3/4.3.2, "Engineered Safety Feature Actuation System Instrumentation." These changes are based on Westinghouse Electric Company LLC topical reports WCAP-14333-P-A, Revision 1, "Probabilistic Risk Analysis of the RPS and ESFAS Test Times and Completion Times," and WCAP-15376-P-A, Revision 1, "Risk-Informed Assessment of the RTS and ESFAS Surveillance Test Intervals and Reactor Trip Breaker Test and Completion Times." DNC requested approval of the LAR by April 30, 2015 with implementation within 90 days of issuance.

In a conference call on July 28, 2014 with the Nuclear Regulatory Commission (NRC) staff, it was identified that due to the nature of MPS3 custom technical specifications, some of the proposed changes are not supported by the scope of WCAP-14333-P-A, Revision 1. Accordingly, DNC is revising the LAR to reflect deletion of the identified unsupported changes to the TS. Attachment 1 provides a discussion of the proposed changes. Attachment 2 provides the revised marked-up TS pages.

No revisions are being made to the proposed changes to surveillance test intervals as addressed in Technical Specification Task Force (TSTF) Travelers TSTF-411, Revision 1, "Surveillance Test Interval Extension for Components of the Reactor Protection System (WCAP-15376-P)."

These proposed changes remain consistent with the NRC-approved TSTF-411, Revision 1 and TSTF-418, Revision 2, "RPS and ESFAS Test Times and Completion Times (WCAP-14333)." Additionally, the proposed changes do not impact the conclusions of the no significant hazards considerations in Section 5.1 of the LAR.

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NRR

If you have any questions regarding this submittal, please contact Wanda Craft at (804) 273-4687.

Sincerely,

Mark D. Sartain
Vice President – Nuclear Engineering

STATE OF CONNECTICUT)
)
COUNTY OF NEW LONDON)

The foregoing document was acknowledged before me, in and for the County and State aforesaid, today by Mark D. Sartain, who is Vice President – Nuclear Engineering of Dominion Nuclear Connecticut, Inc. He has affirmed before me that he is duly authorized to execute and file the foregoing document in behalf of that Company, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 14th day of AUGUST, 2014.

My Commission Expires: FEB. 28, 2016.

Thomas Cleary
Notary Public

Commitments made in this letter: None

THOMAS CLEARY
NOTARY PUBLIC
MY COMMISSION EXPIRES
FEBRUARY 28, 2016

Attachments:

1. Discussion of Proposed Changes
2. Revised Marked-up Pages of the Proposed Changes to the Technical Specifications

cc: U.S. Nuclear Regulatory Commission
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Attachment 1

Discussion of Proposed Changes

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3

By letter dated May 8, 2014, Dominion Nuclear Connecticut, Inc. (DNC) submitted a license amendment request (LAR) for Millstone Power Station Unit 3 (MPS3). The proposed amendment would revise Technical Specifications (TS) 3/4.3.1, "Reactor Trip System Instrumentation," and TS 3/4.3.2, "Engineered Safety Feature Actuation System Instrumentation." These changes are based on Westinghouse Electric Company LLC topical reports WCAP-14333-P-A, Revision 1, "Probabilistic Risk Analysis of the RPS and ESFAS Test Times and Completion Times," and WCAP-15376-P-A, Revision 1, "Risk-Informed Assessment of the RTS and ESFAS Surveillance Test Intervals and Reactor Trip Breaker Test and Completion Times." DNC requested approval of the LAR by April 30, 2015 with implementation within 90 days of issuance.

In a conference call on July 28, 2014 with the Nuclear Regulatory Commission (NRC) staff, it was identified that due to the nature of MPS3 custom technical specifications, some of the proposed changes are not supported by the scope of WCAP-14333-P-A, Revision 1.

The following are the identified unsupported changes:

1. Two functional units which are subject to the proposed ACTION 6:

   - Reactor Coolant Flow—Low, Single Loop (Above P-8) {RTS functional unit 12.a};
   - Reactor Coolant Flow—Low, Two Loops (Above P-7 and below P-8) {RTS functional unit 12.b}.

2. One functional unit which is subject to the proposed ACTION 14:

   - Control Building Isolation, Automatic Actuation Logic and Actuation Relays {ESFAS functional unit 7.c}.

3. Two functional units which are subject to the proposed ACTION 20:

   - Turbine Trip and Feedwater Isolation, T_{ave} Low Coincident with P-4 {ESFAS functional unit 5.d};
   - Cold Leg Injection Permissive, P-19 {ESFAS functional unit 11}.

Accordingly, DNC is revising the proposed LAR to reflect deletion of the identified unsupported changes to the Technical Specifications. Attachment 2 provides the revised marked-up pages which incorporate the following changes:

1. Revise TS Table 3.3-1 by adding ACTION 6A. The new ACTION 6A is similar to ACTION 6 but extends the completion time (CT) in ACTION 6A.a from 6 hours to 72 hours and extends bypass testing time in ACTION 6A.b from 4 hours to 12 hours. The following functional units are affected by the new ACTION 6A:

- Overtemperature ΔT {RTS functional unit 7};
- Overpower ΔT {RTS functional unit 8};
- Pressurizer Pressure -Low {RTS functional unit 9};
- Pressurizer Pressure -High {RTS functional unit 10};
- Pressurizer Water Level – High {RTS functional unit 11};
- Steam Generator Water Level--Low-Low {RTS functional unit 13};
- Low Shaft Speed--Reactor Coolant Pumps {RTS functional unit 14};
- Turbine Trip, Turbine Stop Valve Closure {RTS functional unit 15.b}.

The following functional units will continue to be subject to the existing ACTION 6:

- Reactor Coolant Flow—Low, Single Loop (Above P-8) {RTS functional unit 12.a};
- Reactor Coolant Flow—Low, Two Loops (Above P-7 and below P-8) {RTS functional unit 12.b};

2. Revise Table 3.3-3 by adding ACTION 14A. The new ACTION 14A is similar to ACTION 14 but extends the CT from 6 hours to 24 hours. The following functional units are affected by the new ACTION 14A:

   - Safety Injection (Reactor Trip, Feedwater Isolation, Control Building Isolation (Manual Initiation Only), Start Diesel Generators, and Service Water), Automatic Actuation Logic and Actuation Relays {ESFAS functional unit 1.b};
   - Containment Spray (CDA), Automatic Actuation Logic and Actuation Relays {ESFAS functional unit 2.b};
   - Containment Isolation, Phase "A" Isolation, Automatic Actuation Logic and Actuation Relays {ESFAS functional unit 3.a.2};
   - Containment Isolation, Phase "B" Isolation, Automatic Actuation Logic and Actuation Relays {ESFAS functional unit 3.b.2};

   The following functional unit will continue to be subject to the existing ACTION 14:

   - Control Building Isolation, Automatic Actuation Logic and Actuation Relays {ESFAS functional unit 7.c}.

3. Revise TS Table 3.3-3 by adding ACTION 20A. The new ACTION 20A is similar to ACTION 20 but extends the CT in ACTION 20A.a from 6 hours to 72 hours and extend bypass testing time in ACTION 20A.b from 4 hours to 12 hours. The following functional units are affected by the new ACTION 20A:

   - Safety Injection (Reactor Trip, Feedwater Isolation, Control Building Isolation (Manual Initiation Only), Start Diesel Generators, and Service Water), Containment Pressure--High-1 {ESFAS functional unit 1.c};

- Safety Injection (Reactor Trip, Feedwater Isolation, Control Building Isolation (Manual Initiation Only), Start Diesel Generators, and Service Water), Pressurizer Pressure--Low {ESFAS functional unit 1.d};
- Safety Injection (Reactor Trip, Feedwater Isolation, Control Building Isolation (Manual Initiation Only), Start Diesel Generators, and Service Water), Steam Line Pressure-- Low {ESFAS functional unit 1.e};
- Steam Line Isolation, Containment Pressure-- High-2 {ESFAS functional unit 4.c};
- Steam Line Isolation, Steam Line Pressure-- Low {ESFAS functional unit 4.d};
- Steam Line Isolation, Steam Line Pressure - Negative Rate--High {ESFAS functional unit 4.e};
- Turbine Trip and Feedwater Isolation, Steam Generator Water Level-- High-High (P-14) {ESFAS functional unit 5.b};
- Auxiliary Feedwater, Steam. Gen. Water Level-- Low-Low, Start Motor- Driven Pumps {ESFAS functional unit 6.c.1};
- Auxiliary Feedwater, Steam. Gen. Water Level-- Low-Low, Start Turbine- Driven Pump {ESFAS functional unit 6.c.2};

The following functional units will continue to be subject to the existing ACTION 20:

- Turbine Trip and Feedwater Isolation, T_{ave} Low Coincident with P-4 {ESFAS functional unit 5.d};
- Cold Leg Injection Permissive, P-19 {ESFAS functional unit 11}.

No revisions are being made to the proposed changes to surveillance test intervals as addressed in TSTF-411, Revision 1, "Surveillance Test Interval Extension for Components of the Reactor Protection System (WCAP-15376-P)."

These proposed changes remain consistent with the NRC-approved Technical Specification Task Force (TSTF) Travelers TSTF-411, Revision 1 and TSTF-418, Revision 2, "RPS and ESFAS Test Times and Completion Times (WCAP-14333)." Additionally, the proposed changes do not impact the conclusions of the no significant hazards considerations in Section 5.1 of the LAR.

Attachment 2

Revised Marked-up Pages of the Proposed Changes to the Technical Specifications

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3

November 3, 2000

For Information Only, No Change

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR TRIP SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.1 As a minimum, the Reactor Trip System instrumentation channels and interlocks of Table 3.3-1 shall be OPERABLE.

APPLICABILITY: As shown in Table 3.3-1.

ACTION:

As shown in Table 3.3-1.

SURVEILLANCE REQUIREMENTS

4.3.1.1 Each Reactor Trip System instrumentation channel and interlock and the automatic trip logic shall be demonstrated OPERABLE by the performance of the Reactor Trip System Instrumentation Surveillance Requirements specified in Table 4.3-1.

4.3.1.2 The REACTOR TRIP SYSTEM RESPONSE TIME of each Reactor trip function shall be verified to be within its limit at least once per 18 months. Neutron detectors and speed sensors are exempt from response time verification. Each verification shall include at least one train such that both trains are verified at least once per 36 months and one channel (to include input relays to both trains) per function such that all channels are verified at least once every N times 18 months where N is the total number of redundant channels in a specific Reactor trip function as shown in the "Total No. of Channels" column of Table 3.3-1.

TABLE 3.3-1
REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1. Manual Reactor Trip	2	1	2	1, 2	1
	2	1	2	3*, 4*, 5*	11
2. Power Range, Neutron Flux					
a. High Setpoint	4	2	3	1, 2	2
b. Low Setpoint	4	2	3	1###, 2	2
3. Power Range, Neutron Flux High Positive Rate	4	2	3	1, 2	2
4. Deleted					
5. Intermediate Range, Neutron Flux	2	1	2	1###, 2	3
6. Source Range, Neutron Flux					
a. STARTUP	2	1	2	2##	4
b. Shutdown	2	1	2	3*, 4*, 5*	11
7. Overtemperature ΔT	4	2	3	1, 2	~~6~~
8. Overpower ΔT	4	2	3	1, 2	~~6~~
9. Pressurizer Pressure--Low	4	2	3	1**	~~6~~ (1)
10. Pressurizer Pressure--High	4	2	3	1, 2	~~6~~ (1)
11. Pressurizer Water Level--High	3	2	2	1**	~~6~~

6A

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~~March 16, 2006~~

TABLE 3.3-1 (Continued)
REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
12. Reactor Coolant Flow--Low					
a. Single Loop (Above P-8)	3/loop	2/loop	2/loop	1	6
b. Two Loops (Above P-7 and below P-8)	3/loop	2/loop in two operating loops	2/loop	1	6
13. Steam Generator Water Level--Low-Low	4/stm. gen.	2/stm. gen.	3/stm. gen.	1, 2	6 (1)
14. Low Shaft Speed--Reactor Coolant Pumps	4-1/pump	2	3	1**	~~6~~
15. Turbine Trip					6A
a. Low Fluid Oil Pressure	3	2	2	1***	12
b. Turbine Stop Valve Closure	~~4~~	~~4~~	~~4~~	1***	~~6~~
16. Deleted					
17. Reactor Trip System Interlocks					
a. Intermediate Range Neutron Flux, P-6	2	1	2	2##	8
b. Low Power Reactor Trips Block, P-7					
Power Range Neutron Flux, P-10 Input or	4	2	3	1	8
Turbine Impulse Chamber Pressure, P-13 Input	2	1	2	1	8

~~September 14, 2004~~

TABLE 3.3-1 (Continued)
REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
17. Reactor Trip System Interlocks (Continued)					
c. Power Range Neutron Flux, P-8	4	2	3	1	8
d. Power Range Neutron Flux, P-9	4	2	3	1	8
e. Power Range Neutron Flux, P-10	4	2	3	1, 2	8
18. Reactor Trip Breakers (2)	2	1	2	1, 2	10, 13
	2	1	2	3*, 4*, 5*	11
19. Automatic Trip and Interlock Logic	2	1	2	1, 2	13A
	2	1	2	3*, 4*, 5*	11
20. DELETED					
21. DELETED					

For Information Only, No Change

~~December 10, 2003~~

TABLE 3.3-1 (Continued)

TABLE NOTATIONS

* When the Reactor Trip System breakers are in the closed position and the Control Rod Drive System is capable of rod withdrawal.

** Above the P-7 (At Power) Setpoint.

*** Above the P-9 (Reactor Trip/Turbine Trip Interlock) Setpoint.

Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.

Below the P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint.

(1) The applicable MODES and ACTION statements for these channels noted in Table 3.3-3 are more restrictive and, therefore, applicable.

(2) Including any reactor trip bypass breakers that are racked in and closed for bypassing a reactor trip breaker.

ACTION STATEMENTS

ACTION 1 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in HOT STANDBY within the next 6 hours.

ACTION 2 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within ~~6~~ 72 hours,

b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to ~~4~~ 12 hours for surveillance testing of other channels per Specification 4.3.1.1, and

c. Either, THERMAL POWER is restricted to less than or equal to 75% of RATED THERMAL POWER and the Power Range Neutron Flux Trip Setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER within ~~4~~ 78 hours; or, the QUADRANT POWER TILT RATIO is monitored at least once per 12 hours per Specification 4.2.4.2. +

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TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

ACTION 3 - With the number of channels OPERABLE one less than the Minimum Channels OPERABLE requirement and with the THERMAL POWER level:

a. Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint, and

b. Above the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint but below 10% of RATED THERMAL POWER, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above 10% of RATED THERMAL POWER.

ACTION 4 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, suspend all operations involving positive reactivity additions.*

ACTION 5 - (Not used)

ACTION 6 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 6 hours, and

b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1.

ACTION 7 - (Not used)

Insert A - Page 3/4 3-6

ACTION 8 - With less than the Minimum Number of Channels OPERABLE, within 1 hour determine by observation of the associated permissive annunciator window(s) that the interlock is in its required state for the existing plant condition, or apply Specification 3.0.3.

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* Limited plant cooldown or boron dilution is allowed provided the change is accounted for in the calculated SDM.

Insert A - Page 3/4 3-6

ACTION 6A - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 72 hours, and

b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 12 hours for surveillance testing of other channels per Specification 4.3.1.1

~~March 16, 2006~~

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

ACTION 9- (Not used)

restore the inoperable channel to OPERABLE status within 24 hours or

ACTION 10- With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours; however, one channel may be bypassed for up to ~~2~~ 4 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE.

the next

ACTION 11- With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or open the Reactor Trip System breakers within the next hour.

ACTION 12- With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within ~~6~~ 72 hours, and

b. When the Minimum Channels OPERABLE requirement is met, the inoperable channel may be bypassed for up to ~~4~~ 12 hours for surveillance testing of the Turbine Control Valves.

ACTION 13- With one of the diverse trip features (undervoltage or shunt trip attachments) inoperable, restore it to OPERABLE status within 48 hours or declare the breaker inoperable and apply ACTION 10. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status.

ACTION 13A- With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable Channel to OPERABLE status within ~~6~~ 24 hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE.

5/26/98

For Information Only, No Change

INSTRUMENTATION

3/4.3.2 ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.2 The Engineered Safety Features Actuation System (ESFAS) instrumentation channels and interlocks shown in Table 3.3-3 shall be OPERABLE with their Trip Setpoints set consistent with the values shown in the Nominal Trip Setpoint column of Table 3.3-4.

APPLICABILITY: As shown in Table 3.3-3.

ACTION:

a. With an ESFAS Instrumentation Channel or Interlock Channel Nominal Trip Setpoint inconsistent with the value shown in the Nominal Trip Setpoint column of Table 3.3-4, adjust the Setpoint consistent with the Nominal Trip Setpoint value.

b. With an ESFAS Instrumentation Channel or Interlock Channel found to be inoperable, declare the channel inoperable and apply the applicable ACTION statement requirements of Table 3.3-3 until the channel is restored to OPERABLE status.

November 3, 2000

INSTRUMENTATION

For Information Only, No Change

SURVEILLANCE REQUIREMENTS

4.3.2.1 Each ESFAS instrumentation channel and interlock and the automatic actuation logic and relays shall be demonstrated OPERABLE by performance of the ESFAS Instrumentation Surveillance Requirements specified in Table 4.3-2.

4.3.2.2 The ENGINEERED SAFETY FEATURES RESPONSE TIME* of each ESFAS function shall be verified to be within the limit at least once per 18 months. Each verification shall include at least one train such that both trains are verified at least once per 36 months and one channel (to include input relays to both trains) per function such that all channels are verified at least once per N times 18 months where N is the total number of redundant channels in a specific ESFAS function as shown in the "Total No. of Channels" column of Table 3.3-3.

* The provisions of Specification 4.0.4 are not applicable for response time verification of steam line isolation for entry into MODE 4 and MODE 3 and turbine driven auxiliary feedwater pump for entry into MODE 3.

TABLE 3.3-3
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1. Safety Injection (Reactor Trip, Feedwater Isolation, Control Building Isolation (Manual Initiation Only), Start Diesel Generators, and Service Water).					
a. Manual Initiation	2	1	2	1, 2, 3, 4	19
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	~~11~~ 14A
c. Containment Pressure--High-1	3	2	2	1, 2, 3	~~20~~
d. Pressurizer Pressure--Low	4	2	3	1, 2, 3#	~~20~~ 20A
e. Steam Line Pressure--Low	3/steam line in each operating loop	2/steam line in any operating loop	2/steam line in each operating loop	1, 2, 3#	~~20~~
2. Containment Spray (CDA)					
a. Manual Initiation	2	1 with 2 coincident switches	2	1, 2, 3, 4	19

~~November 23, 1992~~

TABLE 3.3-3 (Continued)
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
2. Containment Spray (CDA) (Continued)					
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	~~11~~
c. Containment Pressure--High-3	4	2	3	1, 2, 3, 4	17
3. Containment Isolation					
a. Phase "A" Isolation					
1) Manual Initiation	2	1	2	1, 2, 3, 4	19
2) Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	~~11~~
3) Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
b. Phase "B" Isolation					
1) Manual Initiation	2	1 with 2 coincident switches	2	1, 2, 3, 4	19
2) Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	~~11~~

14A

TABLE 3.3-3 (Continued)
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
5. Turbine Trip and Feedwater Isolation					
a. Automatic Actuation Logic and Actuaion Relays	2	1	2	1, 2	25
b. Steam Generator Water Level--High-High (P-14)	4/stm. gen. in each operating loop	2/stm. gen. in any operating loop	3/stm. gen. in each operating loop	1, 2, 3	20A → ~~20~~, 21
c. Safety Injection Actuation Logic	2	1	2	1, 2	22
d. T_{ave} Low Coincident with P-4	1 T_{ave}/loop	1 T_{ave} in any two loops	1 T_{ave} in any three loops	1, 2	20

TABLE 3.3-3 (Continued)
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
6. Auxiliary Feedwater					
a. Manual Initiation	2	1	2	1, 2, 3	23
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3	22
c. Stm. Gen. Water Level--Low-Low					
1) Start Motor-Driven Pumps	4/stm. gen.	2/stm. gen. in any operating stm. gen.	3/stm. gen. in each operating stm. gen.	1, 2, 3	~~20~~ 20A
2) Start Turbine-Driven Pump	4/stm. gen.	2/stm. gen. in any 2 operating stm. gen.	3/stm. gen. in each operating stm. gen.	1, 2, 3	~~20~~ 20A
d. Safety Injection Start Motor-Driven Pumps	See Item 1. above for all Safety Injection initiating functions and requirements.				
e. Loss-of-Offsite Power Start Motor-Driven Pumps	2	1	2	1, 2, 3	19

~~October 25, 1996~~

TABLE 3.3-3 (Continued)
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
6. Auxiliary Feedwater (Continued)					
f. Containment Depressurization Actuation (CDA) Start Motor-Driven Pumps	See Item 2. above for all CDA functions and requirements.				
7. Control Building Isolation					
a. Manual Actuation	2	1	2	*	19
b. Manual Safety Injection Actuation	2	1	2	1, 2, 3, 4	19
c. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	14
d. Containment Pressure--High-1	3	2	2	1, 2, 3	16
e. Control Building Inlet Ventilation Radiation	2/intake	1	2/intake	*	18
8. Loss of Power					
a. 4 kV Bus Undervoltage-Loss of Voltage	4/bus	2/bus	3/bus	1, 2, 3, 4	27
b. 4 kV Bus Undervoltage-Grid Degraded Voltage	4/bus	2/bus	3/bus	1, 2, 3, 4	27

For Information Only, No Change

September 14, 2004

TABLE 3.3-3 (Continued)
ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
9. Engineering Safety Features Actuation System Interlocks					
a. Pressurizer Pressure, P-11	3	2	2	1, 2, 3	21
b. Low-Low T_{avg}, P-12	4	2	3	1, 2, 3	21
c. Reactor Trip, P-4	2	2	2	1, 2, 3	23
10. Emergency Generator Load Sequencer	2	1	2	1, 2, 3, 4	15
11. Cold Leg Injection Permissive, P-19	4	2	3	1, 2, 3	20

For Information Only, No Change

~~September 18, 2008~~

TABLE 3.3-3 (Continued)

TABLE NOTATIONS

The Steamline Isolation Logic and Safety Injection Logic for this trip function may be blocked in this MODE below the P-11 (Pressurizer Pressure Interlock) Setpoint.

* MODES 1, 2, 3, and 4.#
During movement of recently irradiated fuel assemblies.

**** Trip function automatically blocked above P-11 and may be blocked below P-11 when Safety Injection on low steam line pressure is not blocked.

ACTION STATEMENTS

ACTION 14 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.

Insert B - Page 3/4 3-24

ACTION 15 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.

ACTION 16 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed until performance of the next required ANALOG CHANNEL OPERATIONAL TEST provided the inoperable channel is placed in the tripped condition within 1 hour.

within 72 hours

ACTION 17 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the bypassed condition and the Minimum Channels OPERABLE requirement is met. One additional channel may be bypassed for up to ~~4~~ hours for surveillance testing per Specification 4.3.2.1.

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ACTION 18 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 7 days. After 7 days, or if no channels are OPERABLE, immediately suspend movement of recently irradiated fuel assemblies, if applicable, and be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

ACTION 19 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

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ACTION 14A - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.

~~March 17, 2004~~

TABLE 3.3-3 (Continued)

ACTION STATEMENTS (Continued)

ACTION 20 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 6 hours, and

b. the Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.2.1.

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ACTION 21 - With less than the Minimum Number of Channels OPERABLE, within 1 hour determine by observation of the associated permissive annunciator window(s) that the interlock is in its required state for the existing plant condition, or apply Specification 3.0.3.

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ACTION 22 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within ~~6~~ hours or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.

ACTION 23 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.

ACTION 24 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated valve inoperable and take the ACTION required by Specification 3.7.1.5.

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ACTION 25 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within ~~6~~ hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.

ACTION 26 - DELETED

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ACTION 20A - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 72 hours, and

b. the Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 12 hours for surveillance testing of other channels per Specification 4.3.2.1.