

## RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

### APR1400 Design Certification

Korea Electric Power Corporation / Korea Hydro & Nuclear Power Co., LTD

Docket No. 52-046

RAI No.: 509-8591  
SRP Section: 16 – Technical Specifications  
Application Section: 16.3.3  
Date of RAI Issue: 08/01/2016

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### **Question No. 16-200**

Paragraph (a)(11) of 10 CFR 52.47 states that a design certification (DC) applicant is to propose Technical Specifications (TS) prepared in accordance with 10 CFR 50.36 and 50.36a. NUREG-1432, "Standard Technical Specifications (STS)-Combustion Engineering Plants," Rev. 4, provides NRC guidance on format and content of technical specifications as one acceptable means to meet 10 CFR 50.36 requirements. Staff needs to evaluate all technical differences from standard TS (STS) NUREG-1432, STS Combustion Engineering Plants, Rev. 4, which is referenced by the DC applicant in DCD Tier 2 Section 16.1, and the docketed rationale for each difference because conformance to STS provisions is used in the safety review as the initial point of guidance for evaluating the adequacy of the generic TS to ensure adequate protection of public health and safety, and the completeness and accuracy of the generic TS Bases.

The Writer's Guide for Plant-Specific Improved Technical Specifications (TSTF-GG-05-01) also provides guidance for the format and content of the TS. There are format and content differences between the DCD and the Writer's Guide. These following corrections are necessary to ensure the completeness and accuracy of the TS and Bases.

Correct the following formatting errors in various Instrumentation tables contained in Technical Specification (TS) 3.3. Section 2.1.8.e of the Writer's Guide for Plant Specific Improved Technical Specifications states "Column headings are in all caps." The following corrections need to be made:

- The word "or" needs to be capitalized in the table headers on the following pages:
  - 3.3.1-6
  - 3.3.1-7
  - 3.3.1-8
  - 3.3.2-4
  - 3.3.5-5

- The word “from” needs to be capitalized in the table headers on the following pages:
  - 3.3.11-3
  - 3.3.11-4
- The word “of” needs to be capitalized in the table headers on the following pages:
  - 3.3.12-3
  - 3.3.12-4
  - 3.3.12-5

These corrections are required to ensure the formatting adheres to the guidance in the Writer’s Guide and to align the text with the STS.

### **Response**

The words “or,” “from,” and “of” will be capitalized in the table headers of TS 3.3.1, 3.3.2, 3.3.5, 3.3.11, and 3.3.12. The “or” in Table 3.3.5-1 was already capitalized as part of RAI 295-8263 Question 16-111.

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### **Impact on DCD**

Same as changes described in the impact on Technical Specifications section.

### **Impact on PRA**

There is no impact on the PRA.

### **Impact on Technical Specifications**

TS 3.3.1, 3.3.2, 3.3.5, 3.3.11, and 3.3.12 will be revised as indicated in the Attachment.

### **Impact on Technical/Topical/Environmental Reports**

There is no impact on any Technical, Topical or Environmental Report.

Table 3.3.1-1 (Page 1 of 3)  
Reactor Protection System Instrumentation – Operating



FUNCTION	APPLICABLE MODES <del>or</del> OTHER SPECIFIED CONDITION	OR SURVEILLANCE REQUIREMENTS
1. Variable Overpower	1, 2	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.6 SR 3.3.1.7 SR 3.3.1.8 SR 3.3.1.9 SR 3.3.1.13
2. Logarithmic Power Level – High <sup>(a)</sup>	2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.12 SR 3.3.1.13
3. Pressurizer Pressure – High	1, 2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13
4. Pressurizer Pressure – Low <sup>(b)</sup>	1, 2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.12 SR 3.3.1.13

- (a) Trip may be bypassed when THERMAL POWER is  $\geq 10^{-3}$  % RTP. Operating bypass shall be automatically removed when THERMAL POWER is  $< 10^{-3}$  % RTP. Trip may be manually bypassed during PHYSICS TESTS pursuant to LCO 3.1.10, "Special Test Exception (STE) – SHUTDOWN MARGIN (SDM)."
- (b) Pressurizer Pressure – Low trip setpoint may be decreased as pressurizer pressure is reduced to 7.0 kg/cm<sup>2</sup>A (100 psia). The margin between pressurizer pressure and the setpoint shall be maintained at  $\leq 28.1$  kg/cm<sup>2</sup>A (400 psia). The operating bypass shall be removed automatically at  $\geq 35.2$  kg/cm<sup>2</sup>A (500 psia). The setpoint shall be increased automatically to normal setpoint as pressurizer pressure is increased.

Table 3.3.1-1 (Page 2 of 3)  
Reactor Protection System Instrumentation – Operating

FUNCTION	APPLICABLE MODES <del>or</del> OTHER SPECIFIED CONDITION	OR SURVEILLANCE REQUIREMENTS
5. Containment Pressure – High	1, 2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13
6. Steam Generator #1 Pressure – Low	1, 2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13
7. Steam Generator #2 Pressure – Low	1, 2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13
8. Steam Generator #1 Water Level – Low	1, 2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13
9. Steam Generator #2 Water Level – Low	1, 2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13
10. Steam Generator #1 Water Level – High	1, 2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13
11. Steam Generator #2 Water Level – High	1, 2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13
12. Reactor Coolant Flow, Steam Generator #1 Water Level – Low	1, 2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13

Table 3.3.1-1 (Page 3 of 3)  
Reactor Protection System Instrumentation – Operating

FUNCTION	APPLICABLE MODES  OF OTHER SPECIFIED CONDITION	 SURVEILLANCE REQUIREMENTS
13. Reactor Coolant Flow, Steam Generator #2 Water Level – Low	1, 2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13
14. Local Power Density – High <sup>(c)</sup>	1, 2	SR 3.3.1.1 SR 3.3.1.2 SR 3.3.1.3 SR 3.3.1.4 SR 3.3.1.5 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.10 SR 3.3.1.11 SR 3.3.1.12 SR 3.3.1.13
15. Departure From Nucleate Boiling Ratio (DNBR) – Low <sup>(c)</sup>	1, 2	SR 3.3.1.1 SR 3.3.1.2 SR 3.3.1.3 SR 3.3.1.4 SR 3.3.1.5 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.10 SR 3.3.1.11 SR 3.3.1.12 SR 3.3.1.13

(c) Trip may be manually bypassed when THERMAL POWER is  $\leq 10^{-4}$  % RTP. Operating bypass shall be automatically removed when THERMAL POWER is  $> 10^{-4}$  % RTP. During testing pursuant to LCO 3.1.10, trip may be bypassed below 5 % RTP. Operating bypass shall be automatically removed when THERMAL POWER is  $> 5$  % RTP.

Table 3.3.2-1 (Page 1 of 1)  
Reactor Protection System Instrumentation – Shutdown

FUNCTION	APPLICABLE MODES <del>OR</del> OTHER SPECIFIED CONDITION	SURVEILLANCE REQUIREMENTS
1. Logarithmic Power Level – High <sup>(a)</sup>	3 <sup>(b)</sup> , 4 <sup>(b)</sup> , 5 <sup>(b)</sup>	SR 3.3.2.1 SR 3.3.2.2 SR 3.3.2.3 SR 3.3.2.4 SR 3.3.2.5
2. Steam Generator Pressure #1 – Low <sup>(c)</sup>	3 <sup>(b)</sup> , 4 <sup>(b)</sup>	SR 3.3.2.1 SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.5
3. Steam Generator Pressurze #2 – Low <sup>(c)</sup>	3 <sup>(b)</sup> , 4 <sup>(b)</sup>	SR 3.3.2.1 SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.5

- (a) Trip may be bypassed when THERMAL POWER is  $\geq 10^{-3}$  % RTP. Operating bypass shall be automatically removed when THERMAL POWER is  $< 10^{-3}$  % RTP.
- (b) With any reactor trip switchgears (RTSGs) closed, any control element assembly (CEA) capable of being withdrawn, and fuel loaded in reactor.
- (c) Steam Generator Pressure – Low trip setpoint may be manually decreased as steam generator pressure is reduced in MODE 3 and 4, provided the margin between steam generator pressure and the setpoint is maintained at 14.1 kg/cm<sup>2</sup>A (200 psia). The setpoint shall be increased automatically as steam generator pressure is increased.

Table 3.3.5-1 (Page 1 of 1)  
Engineered Safety Features Actuation System Instrumentation

FUNCTION	APPLICABLE MODES <sup>OR</sup> OTHER SPECIFIED CONDITIONS
1. Safety Injection Actuation Signal a. Containment Pressure – High b. Pressurizer Pressure – Low <sup>(a)</sup>	1, 2, 3, 4
2. Containment Spray Actuation Signal a. Containment Pressure – High High	1, 2, 3, 4
3. Containment Isolation Actuation Signal a. Containment Pressure – High b. Pressurizer Pressure – Low <sup>(a)</sup>	1, 2, 3
4. Main Steam Isolation Signal a. Steam Generator Pressure – Low <sup>(c)</sup> b. Containment Pressure – High c. Steam Generator Level – High	1, 2 <sup>(b)</sup> , 3 <sup>(b)</sup> , 4
5. Auxiliary Feedwater Actuation Signal SG #1 (AFAS-1) a. Steam Generator Level – Low	1, 2, 3
6. Auxiliary Feedwater Actuation Signal SG #2 (AFAS-2) a. Steam Generator Level – Low	1, 2, 3

- (1) The setpoint may be manually decreased to a minimum value of 7.0 kg/cm<sup>2</sup>A (100 psia), as pressurizer pressure is reduced, provided the margin between pressurizer pressure and the setpoint is maintained  $\leq 28.1$  kg/cm<sup>2</sup> (400 psi). Trips may be bypassed when pressurizer pressure is  $< 28.1$  kg/cm<sup>2</sup>A (400 psia). Bypass shall be automatically removed when pressurizer pressure is  $\geq 35.2$  kg/cm<sup>2</sup>A (500 psia). The setpoint shall be automatically increased to the normal setpoint as pressurizer pressure is increased.
- (2) Main Steam Isolation Signal (MSIS) Function (Steam Generator Pressure – Low, Containment Pressure – High, and Steam Generator Level – High signals) is not required to be OPERABLE when all associated valves isolated by the MSIS Function are closed and deactivated.
- (3) The setpoint may be decreased as steam pressure is reduced, provided the margin between steam pressure and the setpoint is maintained  $\leq 14.1$  kg/cm<sup>2</sup> (200 psi). The setpoint shall be automatically increased to the normal setpoint as steam pressure is increased.

Table 3.3.11-1 (Page 1 of 2)  
Accident Monitoring Instrumentation

FUNCTION	REQUIRED MEASUREMENT CHANNELS	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1
1. Logarithmic Reactor Power	2	E
2. Reactor Coolant Hot Leg Temperature (Wide Range)	2 per loop	E
3. Reactor Coolant Cold Leg Temperature (Wide Range)	2 per loop	E
4. Reactor Coolant System Pressure (Wide Range)	2	E
5. Reactor Vessel Coolant Level	2	F
6. Reactor Cavity Level	4	E
7. Containment Pressure (Wide Range)	2	E
8. Containment Pressure (Extended Wide Range)	2	E
9. Containment Isolation Valve Position	1 per valve <sup>(a),(b)</sup>	E
10. Containment Upper Operating Area Radiation	2	F
11. Pressurizer Level	2	E
12. Steam Generator Level (Wide Range)	2 per Steam Generator	E
13. Holdup Volume Tank Level	4	E

(a) Not required for isolation valves whose associated penetration is isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.

(b) Only one position indication channel is required for penetration flow paths with only one installed main control room indication channel.



Table 3.3.11-1 (Page 2 of 2)  
Accident Monitoring Instrumentation

FUNCTION	REQUIRED MEASUREMENT CHANNELS	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1
14. Core Exit Temperature – Quadrant 1	2 <sup>(c)</sup>	E
15. Core Exit Temperature – Quadrant 2	2 <sup>(c)</sup>	E
16. Core Exit Temperature – Quadrant 3	2 <sup>(c)</sup>	E
17. Core Exit Temperature – Quadrant 4	2 <sup>(c)</sup>	E
18. Steam Generator Pressure	2 per Steam Generator	E
19. Degree of Subcooling	2 <sup>(d)</sup>	E
20. Pressurizer Pressure (Wide Range)	2	E
21. IRWST Level	4	E
22. IRWST Temperature	4	E
23. Containment Level	2	E
24. Control Rod Position	1/rod	E
25. Containment Operating Area Radiation	2	E
26. Spent Fuel Pool Radiation	2	E

(c) A measurement CHANNEL consists of four or more core exit thermocouples.

(d) A measurement CHANNEL consists of one or more Core Exit Temperature, Reactor Vessel Upper Head Temperature, Reactor Coolant Inlet Temperature (T-Cold) Wide Range, Reactor Coolant Outlet Temperature (T-Hot) Wide Range, and Pressurizer Pressure (Wide Range).

Table 3.3.12-1 (Page 1 of 3)  
Remote Shutdown Display and Control Functions

FUNCTION (DISPLAY or CONTROL)	REQUIRED NUMBER of CHANNELS <sup>(a)</sup>
1. Neutron Logarithmic Power	2
2. Hot Leg Temperature	1 per loop
3. Cold Leg Temperature	1 per loop
4. Pressurizer Pressure	2
5. Pressurizer Level	2
6. Pressurizer Reactor Coolant Gas Vent (RCGV) Position	1 per valve
7. Steam Generator (SG) #1 Pressure	2
8. Steam Generator (SG) #2 Pressure	2
9. SG #1, #2 Level	2
10. In-containment Refueling Water Storage Tank (IRWST) Level	2
11. Safety Injection (SI) Pump Discharge Pressure	1
12. Safety Injection Tank (SIT) Pressure (Wide Range)	4 (1 per tank)
13. Shutdown Cooling (SC) Inlet and Outlet Temperature	4 per tank loop
14. SC Pump Flow Rate	1
15. SI Pump Flow Rate	1
16. Auxiliary Feedwater (AFW) Pump Discharge Pressure (SG#1)	2 <sup>(b)</sup>
17. AFW Pump Discharge Pressure (SG #2)	2 <sup>(b)</sup>
18. AFW Pump Suction Pressure and Low Pressure Alarm (SG #1, #2)	4 <sup>(b)</sup>
19. AFW Steam Motive Power Instrumentation (SG #1, #2)	2 <sup>(b),(c)</sup>
20. AFW Pump Flow Rate (SG #1, #2)	2 <sup>(b),(c)</sup>
21. AFW Pump Recirculation Flow Rate (SG #1, #2)	4 <sup>(b)</sup>

OF

- (a) A division can have one or more channels (per IEEE 603).
- (b) Turbine Driven Pump Display and Control for Division I, Motor Driven Pump Display and Control for Division II.
- (c) Includes Turbine-Driven Pump Turbine Inlet Pressure, Turbine-Driven Pump Turbine Speed, Turbine Trip and Throttle (Stop) Valves Open/Close Position and Close Position Alarm, to Division I Steam Motive Power, No Display for Division II Motive Power.

Table 3.3.12-1 (Page 2 of 3)  
Remote Shutdown Display and Control Functions

FUNCTION (DISPLAY or CONTROL)	REQUIRED NUMBER of CHANNELS <sup>(a)</sup>
22. AFW Storage Tank Level and Low Alarm BOP	1 per tank
23. Component Cooling Water (CCW) Pump and Essential Service Water (ESW) Pump Status Indication	1
24. Emergency Diesel Generator (EDG) Status Indication	1
25. Reactor Coolant Pump (RCP) Trip Pushbutton	1 per pump
26. Pressurizer Backup Heater Control (Group 1 & 2)	2
27. Main Steam Atmospheric Steam Dump Valve (MSADV) Controls (SG #1, #2)	4 <sup>(g)</sup>
28. MSADV Block Valve Controls (SG #1, #2)	4 <sup>(g)</sup>
29. Pressurizer RCGV Valve Controls	1 per valve
30. Shutdown Cooling System (SCS) Warmup Line Isolation Valve Controls	1
31. SCS Suction Line Isolation Valve Controls (3 valves per train)	1
32. IRWST Isolation Valve Control	1
33. SCS Test Return Line Isolation Valve Control (Throttle)	1
34. SCS Test Return Line Isolation Valve Control	1
35. Containment Spray (CS) Pump/SC Pump Suction Cross Connect Valve Control	1
36. IRWST Return Line Isolation Valve Control	1
37. SC Heat Exchanger Bypass Flow Control Valve Control	1
38. SC Heat Exchanger Discharge Isolation and Throttle Valve Control	1
39. SI Low Flow Control Bypass Valve Control	1
40. SIT Atmospheric Vent Valve Control	4 (1 per tank)
41. SIT Isolation Valve Control	4 (1 per tank)
42. SCS Direct Vessel Injection (DVI) Isolation Valve Control	1
43. SI Line Isolation Valve Control	1

OF

(a) A division can have one or more channels (per IEEE 603).

(g) Includes ON/OFF switch and M/A station.

Table 3.3.12-1 (Page 3 of 3)  
Remote Shutdown Display and Control Functions

FUNCTION (DISPLAY or CONTROL)	REQUIRED NUMBER OF CHANNELS <sup>(a)</sup>
44. SI Pump/SC Pump Suction Cross Connect Valve Control	1
45. SI Pump Control	1
46. SC Pump Control	1
47. Manual Reactor Trip Switch	2 <sup>(d)</sup>
48. MSIS Actuation Switch	2
49. AFW Pump Controls (SG #1, #2)	4 <sup>(b)</sup>
50. AFW Isolation Valves (SG #1, #2)	4 <sup>(b)</sup>
51. AFW Flow Control Valves (SG #1, #2)	4 <sup>(b), (g)</sup>
52. AFW Steam Motive Power Controls (SG #1, #2)	2 <sup>(b), (e)</sup>
53. Charging Pump Controls	2
54. AF Turbine Trip and Throttle Valve 1&2 Trip and Reset	2
55. EDG Power Circuit Breaker (PCB) Controls	2
56. Reactor Containment Building Fan Cooler Controls	1
57. Area Cooling Fan Controls	1
58. Digital Control Transfer Switch	2 <sup>(f)</sup>
59. CCW Pump and ESW Pump Controls	1

OF

- (a) A division can have one or more channels (per IEEE 603).
- (b) Turbine Driven Pump Display and Control for Division I, Motor Driven Pump Display and Control for Division II.
- (d) A division consists of two Manual Reactor Trip Switches in opposite trip legs to meet the selective two-out-of-four logic for a reactor trip.
- (e) AFW Pump Turbine Steam Supply Valves, AFW Pump Turbine Steam Isolation and Isolation Bypass Valves, AFW Turbine, and AFW Turbine Speed Control for Division I, No Steam Motive Power Controls for Division II.
- (f) Includes non-safety Channel N1 and N2.
- (g) Includes ON/OFF switch and M/A station.

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SRP Section: 16 – Technical Specifications  
Application Section: 16.3.3  
Date of RAI Issue: 08/01/2016

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Paragraph (a)(11) of 10 CFR 52.47 states that a design certification (DC) applicant is to propose Technical Specifications (TS) prepared in accordance with 10 CFR 50.36 and 50.36a. NUREG-1432, “Standard Technical Specifications (STS)-Combustion Engineering Plants,” Rev. 4, provides NRC guidance on format and content of technical specifications as one acceptable means to meet 10 CFR 50.36 requirements. Staff needs to evaluate all technical differences from standard TS (STS) NUREG-1432, STS Combustion Engineering Plants, Rev. 4, which is referenced by the DC applicant in DCD Tier 2 Section 16.1, and the docketed rationale for each difference because conformance to STS provisions is used in the safety review as the initial point of guidance for evaluating the adequacy of the generic TS to ensure adequate protection of public health and safety, and the completeness and accuracy of the generic TS Bases.

The Writer’s Guide for Plant-Specific Improved Technical Specifications (TSTF-GG-05-01) also provides guidance for the format and content of the TS. There are format and content differences between the DCD and the Writer’s Guide. These following corrections are necessary to ensure the completeness and accuracy of the TS and Bases.

Correct the following formatting error of the Required Actions designation in Technical Specification (TS) 3.3.5.

Section 2.5.5.c.2 of the Writer’s Guide for Plant Specific Improved Technical Specifications states “Each Required Action begins with a Required Action designator, which is the Condition designator followed by one or more Arabic numerals.”

In the section for Required Action F, Required Action “F.1” is incorrectly labeled “E.1”.

This correction is required to ensure the correct formatting of the TS.

**Response**

As part of RAI 295-8263, Question 16-111, Rev.1, the Required Action "E.1" for Condition F of TS Section 3.3.5 was already changed to "F1".

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**Impact on DCD**

There is no impact on the DCD.

**Impact on PRA**

There is no impact on the PRA.

**Impact on Technical Specifications**

There is no impact on the Technical Specifications

**Impact on Technical/Topical/Environmental Reports**

There is no impact on any Technical, Topical or Environmental Report.

## RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

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### **Question No. 16-202**

Paragraph (a)(11) of 10 CFR 52.47 states that a design certification (DC) applicant is to propose Technical Specifications (TS) prepared in accordance with 10 CFR 50.36 and 50.36a. NUREG-1432, “Standard Technical Specifications (STS)-Combustion Engineering Plants,” Rev. 4, provides NRC guidance on format and content of technical specifications as one acceptable means to meet 10 CFR 50.36 requirements. Staff needs to evaluate all technical differences from standard TS (STS) NUREG-1432, STS Combustion Engineering Plants, Rev. 4, which is referenced by the DC applicant in DCD Tier 2 Section 16.1, and the docketed rationale for each difference because conformance to STS provisions is used in the safety review as the initial point of guidance for evaluating the adequacy of the generic TS to ensure adequate protection of public health and safety, and the completeness and accuracy of the generic TS Bases.

The Writer’s Guide for Plant-Specific Improved Technical Specifications (TSTF-GG-05-01) also provides guidance for the format and content of the TS. There are format and content differences between the DCD and the Writer’s Guide. These following corrections are necessary to ensure the completeness and accuracy of the TS and Bases.

Correct the following formatting errors of the Required Actions designation in Technical Specification (TS) 3.3.6.

Section 2.5.5.c.2 of the Writer’s Guide for Plant Specific Improved Technical Specifications states “Each Required Action begins with a Required Action designator, which is the Condition designator followed by one or more Arabic numerals.”

- The first Required Action “E.” should read “E.1” since there is a Required Action E.2.
- Required Action stated as “C.” should read “C.1”.
- Required Action stated as “D.” should read “D.1”.

The discussion of the above noted Required Actions in the respective sections of the Bases have the Required Actions annotated correctly, therefore no corrections are necessary in the Bases.

This correction is required to ensure the correct formatting of the TS.

### **Response**

As part of RAI 295-8263, Question 16-114, Rev.1, the Required Actions “C.”, “D.”, and “E.” for Conditions C, D, and E of TS 3.3.6, respectively, were already changed to “C.1”, “D.1”, and “E.1”.

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#### **Impact on DCD**

There is no impact on the DCD.

#### **Impact on PRA**

There is no impact on the PRA.

#### **Impact on Technical Specifications**

There is no impact on the Technical Specifications

#### **Impact on Technical/Topical/Environmental Reports**

There is no impact on any Technical, Topical or Environmental Report.



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The Writer’s Guide for Plant-Specific Improved Technical Specifications (TSTF-GG-05-01) also provides guidance for the format and content of the TS. There are format and content differences between the DCD and the Writer’s Guide. These following corrections are necessary to ensure the completeness and accuracy of the TS and Bases.

Correct the formatting error within the Completion Times column within Technical Specification 3.3.6.

TS 3.3.6 contains 2 Required Actions for Condition B, Required Actions B.1 and B.2, each requiring their own Completion Time. The Completion Times are located adjacent to each other, vice having “Immediately” line up with the first line of text for Required Action B.1 and “48 hours” line up with the first line of text for Required Action B.2.

This correction is required to ensure the accuracy of the TS.

**Response**

The Completion Time “48 hours” for Condition B in TS 3.3.6 will be relocated to line up with the first line of text for Required Action B.2.

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**Impact on DCD**

Same as changes described in the impact on Technical Specifications section.

**Impact on PRA**

There is no impact on the PRA.

**Impact on Technical Specifications**

TS 3.3.6 will be revised as indicated in the Attachment.

**Impact on Technical/Topical/Environmental Reports**

There is no impact on any Technical, Topical or Environmental Report.

3.3 INSTRUMENTATION


3.3.6 Engineered Safety Features Actuation System (ESFAS) Logic and Manual Trip

LCO 3.3.6 Four channels of ESFAS Coincidence Logic, four channels of ESFAS Initiation Logic, four channels of Actuation Logic, and four channels of Manual Trip shall be OPERABLE for each Function in Table 3.3.6-1.

APPLICABILITY: According to Table 3.3.6-1.

ACTIONS

----- NOTE -----  
 Separate Condition entry is allowed for each ESFAS Function.  
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CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one Coincidence Logic channel, Initiation Logic channel, or Manual Trip channel inoperable.	A.1 Restore channel to OPERABLE status.	48 hours
B. One or more Functions with two Initiation Logic channels affecting the same trip leg inoperable.	B.1 Open at least one contact in affected trip leg of both ESFAS Actuation Logic channels.  <u>AND</u> B.2 Restore channels to OPERABLE status.	Immediately 48 hours 

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RAI No.: 509-8591  
SRP Section: 16 – Technical Specifications  
Application Section: 16.3.3  
Date of RAI Issue: 08/01/2016

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### **Question No. 16-204**

Paragraph (a)(11) of 10 CFR 52.47 states that a design certification (DC) applicant is to propose Technical Specifications (TS) prepared in accordance with 10 CFR 50.36 and 50.36a. NUREG-1432, “Standard Technical Specifications (STS)-Combustion Engineering Plants,” Rev. 4, provides NRC guidance on format and content of technical specifications as one acceptable means to meet 10 CFR 50.36 requirements. Staff needs to evaluate all technical differences from standard TS (STS) NUREG-1432, STS Combustion Engineering Plants, Rev. 4, which is referenced by the DC applicant in DCD Tier 2 Section 16.1, and the docketed rationale for each difference because conformance to STS provisions is used in the safety review as the initial point of guidance for evaluating the adequacy of the generic TS to ensure adequate protection of public health and safety, and the completeness and accuracy of the generic TS Bases.

The Writer’s Guide for Plant-Specific Improved Technical Specifications (TSTF-GG-05-01) also provides guidance for the format and content of the TS. There are format and content differences between the DCD and the Writer’s Guide. These following corrections are necessary to ensure the completeness and accuracy of the TS and Bases.

Correct the following errors within the Note for Surveillance Requirement (SR) 3.3.6.2.

The text includes the phrase “...tested once every 18 month(MODE 6) or in MODE 5 if not tested until the previous 62...” The word “month” should be “months” and should have a space between it and the “(”. The phrase “...tested until the...” should read “...tested within the...”

These corrections are required to ensure the accuracy of the SR.

**Response**

As part of RAI 295-8263, Question 16-114, Rev.1, the first sentence within the Note for SR 3.3.6.2 was already changed to “Components exempt from testing during operation shall be tested once every 18 months (MODE 6) or in MODE 5 if not tested within the previous 62 days.”

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**Impact on DCD**

There is no impact on the DCD.

**Impact on PRA**

There is no impact on the PRA.

**Impact on Technical Specifications**

There is no impact on the Technical Specifications

**Impact on Technical/Topical/Environmental Reports**

There is no impact on any Technical, Topical or Environmental Report.