

Enclosure 3

***TECHNICAL SPECIFICATION
RULES OF USAGE WORKBOOK***



***THE FOLLOWING WORKBOOK QUESTIONS ARE COMMON TO BOTH
PWR AND BWR NUREGS.***

1. Refer to the ACTIONS Table provided in Example 1.2-2 to answer the following question.

When Condition A is entered, what combinations of Required Actions can be performed to maintain compliance with TS?

2. The plant is operating at 100% RTP and a pump room ventilation fan is declared inoperable and engineering has determined that the pump room fan is required for the pump to perform its related safety function.

The action requirements for the ventilation fan are NOT defined in Technical Specifications. However, action requirements for the ventilation fan are defined in the Technical Requirements Manual (i.e., a licensee-controlled document).

If a non-TS support system renders the pump inoperable, are the TS ACTIONS related to the pump required to be performed?

3. Refer to the ACTIONS Table provided in Example 1.3-2 to answer the following question. Assume that the system is a two (2) pump system.
- The plant is in MODE 1.
 - Pump A is declared inoperable at 1230 on July 12.
 - Pump B is declared inoperable at 1630 on July 12.

What is the TS Required Action?

4. Refer to the ACTIONS Table provided in Example 1.3-2 to answer the following question. Assume that the system is a two (2) pump system.
- Pump A is declared inoperable at 0300 on November 3 and Condition A is entered.
 - Pump B is declared inoperable at 0300 on November 6 and LCO 3.0.3 is entered.
 - Pump A is restored to OPERABLE status at 0330 on November 6 and LCO 3.0.3 is exited.

Including any extensions that are permitted by TS, what is the LATEST time and date to restore Pump B to OPERABLE status without requiring entry into Condition B?

5. Refer to the ACTIONS Table provided in Example 1.3-2 to answer the following question.

The plant is at 100% power.

- At 0800, Condition B is entered.
- At 1000, a controlled plant shutdown is started and reactor power is lowered.
- At 1100, Maintenance reports that the inoperable pump has been repaired.
- At 1130, post-maintenance testing is complete and satisfactory.

Is the plant required to continue to MODE 3? Explain your answer.

6. Refer to the ACTIONS Table provided in Example 1.3-4 to answer the following question.
- At 1230 on August 5, one valve (Valve A) is declared inoperable.
 - At 1330 on August 5, a second valve (Valve B) is declared inoperable.

What TS ACTION is required?

7. Refer to the ACTIONS Table provided in Example 1.3-5 to answer the following question.

- At 0400 on December 22, one valve (Valve A) is declared inoperable.
- At 0700 on December 22, a second valve (Valve B) is declared inoperable.
- At 0730, Valve A is restored to OPERABLE status.

Including any extensions permitted by TS, what is the LATEST time and date that the inoperable Valve B must be restored to OPERABLE status to maintain TS compliance?

8. Refer to the ACTIONS Table provided in Example 1.3-6 to answer the following question.

One channel is declared inoperable at 0730 on September 9. The designated SR (SR 3.x.x.x) is completed at 1130 on September 9.

Including any extensions permitted by TS, what is the LATEST time and date to perform the SR again without requiring entry into Condition B?

9. Refer to the ACTIONS Table provided in TS Example 1.3-7 to answer the following question.

Condition A is entered at 1210 and the affected subsystem is verified isolated at 1220.

Including any extensions permitted by TS, what is the LATEST time to complete the second verification of Required Action A.1 without entering Condition B?

10. Refer to the SURVEILLANCE REQUIREMENTS Table provided in Example 1.4-1 to answer the following question.

The plant is at 100% power. At 1930 on April 8, it is discovered that the last performance of the specified CHANNEL CHECK, which is required in MODE 1, was completed at 0130 that morning. What TS ACTIONS are required for this condition?

11. Refer to the SURVEILLANCE REQUIREMENTS Table provided in Example 1.4-1 to answer the following question.

The plant is in MODE 4.

- At 0530 on February 9 the specified CHANNEL CHECK is performed.
- The last performance of the specified CHANNEL CHECK was twenty-three (23) days ago.
- At 1930 on February 9, MODE 3 is entered.

Has a TS violation occurred? Explain your answer.

12. Refer to the SURVEILLANCE REQUIREMENTS Table provided in Example 1.4-2 to answer the following question.

Plant startup and power ascension is in progress on September 13.

- At 1400, reactor power was raised above 25% RTP.
- At 1800, flow was verified within limits.
- At 1900, reactor power was lowered below 25% RTP.
- At 2000, reactor power was raised above 25% RTP and is currently at 55% RTP.

Including any extensions permitted by TS, what is the LATEST time and date to complete the next verification that flow is within the limits? Explain your answer.

13. Refer to the SURVEILLANCE REQUIREMENTS Table provided in Example 1.4-2 to answer the following question.

Plant startup and power ascension is in progress on June 1.

- At 0900, reactor power was raised above 25% RTP.
- At 1300, flow was verified within limits.

Including any extensions permitted by TS, what is the LATEST time and date to complete the next verification that flow is within the limits? Explain your answer.

14. Refer to the SURVEILLANCE REQUIREMENTS Table provided in Example 1.4-3 to answer the following question.

Plant startup and power ascension is in progress on June 1.

- At 0800 on June 1, reactor power was raised above 25% RTP.
- At 1200 on June 1, the specified channel adjustment was completed.
- The last performance of the specified channel adjustment was twenty (20) days ago.
- At 1300 on June 1, reactor power was lowered below 25% RTP. The plant was placed into MODE 3 for a minor repair. The repairs will NOT affect the previous channel adjustment.
- At 1400 on June 2, reactor power was raised above 25% RTP and is currently at 38% RTP.

Including any extensions permitted by TS, what is the LATEST time and date to complete the next performance of the specified channel adjustment? Explain your answer.

15. Refer to the SURVEILLANCE REQUIREMENTS Table provided in Example 1.4-3 to answer the following question.

Plant startup and power ascension is in progress on June 1.

- At 0800 on June 1, reactor power was raised above 25% RTP.
- At 1200 on June 1, the specified channel adjustment was completed.
- At 1300 on June 1, reactor power was lowered below 25% RTP. The plant was shutdown for some repairs. The repairs will NOT affect the previous channel adjustment.
- At 1400 on June 10, reactor power was raised above 25% RTP and is currently at 38% RTP.
- At 1800 on June 10, the specified channel adjustment was completed.

Has a TS violation occurred? Explain your answer.

***THE FOLLOWING WORKBOOK QUESTIONS ARE ASSOCIATED WITH
BWR NUREGS.***

16. With all RPV head closure bolts fully tensioned and the reactor mode switch in the REFUEL position, what is the plant MODE?

17. Refer to the ACTIONS Table provided in Example 1.3-1 to answer the following question.

Condition B is entered at 1000 on April 15. The plant is in MODE 3 at 1600 on April 15. What is the LATEST time and date to place the plant in MODE 4 while maintaining compliance with TS?

18. The unit is operating at 100% RTP when the following equipment becomes inoperable:

- At 1300 on April 13, DG 1 is declared inoperable.
- At 1700 on April 13, DG 2 is declared inoperable.
- At 0730 on April 16, DG 1 is restored to OPERABLE status.

Including any extensions permitted by TS, when must DG 2 be restored to OPERABLE status without requiring a unit shutdown?

19. The plant is in MODE 1. At 2200 on April 4, DG 1 is declared inoperable due to air start solenoid failures. Condition B of TS 3.8.1 is entered at this time. At 1900 on April 5, SR 3.8.1.2 and SR 3.8.1.3 are due to be performed (31 days plus extension as allowed by SR 3.0.2) on DG 1.

If SR 3.8.1.2 and SR 3.8.1.3 are not performed by 1900 on April 5, what additional TS ACTIONS are required? Explain your answer.

20. LCO 3.5.1 requires each ECCS injection/spray subsystem to be OPERABLE.

a. What subsystems are required to meet this LCO?

b. What components are required for a LPCI subsystem to be OPERABLE?

21. The plant is in MODE 2 and preparing to startup following a refueling outage.
- During the outage, the HPCI turbine was overhauled.
 - The maintenance was satisfactory and HPCI will function if main steam pressure were available to the HPCI turbine.
 - HPCI functional testing (SR 3.5.1.8) has NOT been performed due to insufficient steam pressure.

Can the reactor startup proceed to >150 psig in MODE 2 with HPCI in this condition? Explain your answer.

22. The plant is in MODE 3.

- Condition C of TS 3.6.1.2 has been entered due to leakage in both primary containment air lock doors.
- The leakage results in exceeding the acceptance criteria for the overall containment leakage rate.

Do Technical Specifications require the ACTIONS of TS 3.6.1.1 be entered?
Explain your answer.

23. The plant is prepared to change from MODE 2 to MODE 1 while irradiated fuel assemblies are being moved in the spent fuel storage pool.

- Condition A of TS 3.7.6 has been entered and Required Action A.1 performed due to low level in the spent fuel pool.
- All other applicable LCO statements are met.

Is the MODE change allowed by Technical Specifications? Explain your answer.

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PWR NUREGs.***

24. Concerning ECCS Accumulators in TS 3.5.1:

- a. What limits are required to be met for an accumulator to be OPERABLE in MODE 1?

- b. While performing SR 3.5.1.4, it is discovered that the boron concentration of the "A" Accumulator is outside the specified limit. The time of discovery is February 14 at 0600.

What TS ACTIONS are required?

- c. If the "A" Accumulator cannot be restored to OPERABLE within the associated Completion Time, what TS ACTION is required?

25. The plant is in MODE 3.

- Condition A of TS 3.6.2 has been entered due to leakage in one airlock door of one airlock.
- The overall leakage has NOT exceeded the acceptance criteria of the overall containment leakage rate.

Do Technical Specifications allow entry into MODE 2? Explain your answer.

26. The plant is in MODE 2 preparing to enter MODE 1.

- At 1600 on March 5, the boron concentration of one ECCS accumulator is discovered to be outside the specified limits.
- All other applicable LCO statements are met.

Is the MODE change allowed by Technical Specifications? Explain your answer.

27. The plant is in MODE 3.

- Condition C of TS 3.6. 2 has been entered due to leakage in both containment air lock doors of one airlock.
- The leakage results in exceeding the acceptance criteria for the overall containment leakage rate.

Do Technical Specifications require the ACTIONS of TS 3.6.1 be entered?
Explain your answer.

28. The plant is in MODE 1. The following occurred on December 12:

- At 1100, a Train A DC bus is determined to inoperable.
- At 1200, a Train A AC Vital bus is determined to inoperable.

Assuming no loss of safety function, what TS Conditions are required to be entered?

29. The plant is at 100% power.

The following occur:

- At 0800 on June 1, Containment Cooling Train A is declared inoperable.
- At 0500 on June 7, Containment Spray Train A is declared inoperable.
- At 0600 on June 8, Containment Cooling Train A is restored to OPERABLE status.
- At 1300 on June 9, Containment Cooling Train B is declared inoperable.
- At 2300 on June 9, Containment Spray Train A is restored to OPERABLE status.

Including any extensions permitted by Technical Specifications, which one of the following describes the LATEST time and date to restore Containment Cooling Train B to OPERABLE status?