



SEP 05 2007

L-2007-131  
10 CFR 50.90  
10 CFR 50.91

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555-00001

RE: Turkey Point Units 3 and 4  
Docket Nos. 50-250 and 50-251  
License Amendment Request (LAR) 193  
Administrative changes to Technical Specifications to Remove Notes Regarding the  
Inoperability of Rod Position Indication for Control Rods F-8 (Unit 4) and M-6 (Unit 3)

Pursuant to 10 CFR 50.90 and 10 CFR 50.91(a)(6), Florida Power and Light Company (FPL) requests approval of changes to the Turkey Point Units 3 and 4 Facility Operating Licenses DPR-31 and DPR-41, respectively, by incorporating the attached Technical Specification (TS) revisions. The proposed Technical Specification License Amendment Request (LAR) removes the Turkey Point Unit 4 License Amendment No. 221 associated notes regarding the inoperability of the Unit 4 Rod Position Indication (RPI) system for control rod F-8 in Shutdown Bank B. In addition, the proposed LAR removes the Turkey Point Unit 3 Amendment No. 230 associated notes regarding the inoperability of the Unit 3 RPI system for control rod M-6 in Control Bank C.

On August 20, 2004, the U.S. Nuclear Regulatory Commission (NRC) issued License Amendment 221 for Turkey Point Unit 4 which modified TS 3/4.1.3.1, "Movable Control Assemblies," TS 3/4.1.3.2, "Position Indication Systems-Operating," TS 3/4.1.3.5, "Shutdown Rod Insertion Limit," to allow the use of an alternate method of determining rod position for control rod F-8 in Shutdown Bank B until the end of Cycle 21. The RPI system for control rod F-8 was repaired during the Unit 4 Cycle 22 refueling outage in Spring 2005; thus the associated TS License Amendment 221 revisions are no longer required.

On October 5, 2006, the NRC issued License Amendment 230 for Turkey Point Unit 3 which modified TS 3/4.1.3.1, "Movable Control Assemblies," TS 3/4.1.3.2, "Position Indication Systems-Operating," TS 3/4.1.3.6, "Control Rod Insertion Limits," to allow the use of an alternate method of determining rod position for control rod M-6 in Control Bank C until the end of Cycle 22. The RPI system for control rod M-6 was repaired in June 2007; thus the associated TS License Amendment 230 revisions are no longer required.

Attachment 1 is the evaluation of the proposed changes. Attachment 2 is the "Determination of No Significant Hazards Consideration." Attachments 3 and 4 contain copies of the affected Technical Specifications pages marked-up and a clean copy of the proposed revisions, respectively.

The Turkey Point Plant Nuclear Safety Committee has reviewed the proposed amendments. In accordance with 10 CFR 50.91(b)(1), a copy of the proposed amendments is being forwarded to the State Designee for the State of Florida.

A001  
NRR

The proposed changes have been evaluated in accordance with 10 CFR 50.91(a)(1), using the criteria in 10 CFR 50.92(c). FPL has determined that the proposed changes involve no significant hazards considerations.


If you have any questions regarding this submittal, please contact James Connolly, Licensing Manager, at (305) 246-6632.

I declare under penalty of perjury that the foregoing is true and correct.

Very truly yours,

SEP 05 2007

Executed on

  
\_\_\_\_\_  
William Jefferson, Jr.  
Vice President  
Turkey Point Nuclear Plant

Attachments

cc: Regional Administrator, Region II, USNRC  
Senior Resident Inspector, USNRC, Turkey Point Plant  
Mr. W. A. Passetti, Florida Department of Health

**ATTACHMENT 1 TO L-2007-131**  
**EVALUATION OF PROPOSED TS CHANGES**

## **EVALUATION OF PROPOSED TS CHANGES**

### **BACKGROUND**

By letter dated July 28, 2004, as supplemented by letter dated August 5, 2004, Florida Power and Light Company (FPL) requested the exigent approval of changes to the Technical Specifications (TSs) for Turkey Point Unit 4. The revision was requested due to an inoperable control Rod Position Indication (RPI) associated with control rod F-8 in Shutdown Bank B.

On August 20, 2004, the U.S. Nuclear Regulatory Commission (NRC) issued License Amendment No. 221 for Turkey Point Unit 4 which modified TS 3/4.1.3.1, "Movable Control Assemblies," TS 3/4.1.3.2, "Position Indication Systems-Operating," TS 3/4.1.3.5, "Shutdown Rod Insertion Limit," to allow the use of an alternate method of determining rod position for control rod F-8 until the end of Cycle 21. The RPI system for control rod F-8 was repaired during the Unit 4 Cycle 22 refueling outage in Spring 2005; thus the associated TS revisions are no longer required.

By letter dated September 8, 2006, FPL requested exigent approval of changes to the TSs for Turkey Point Unit 3. The revision was requested due to an inoperable control RPI associated with control rod M-6 in Control Bank C.

On October 5, 2006, the NRC issued License Amendment 230 for Turkey Point Unit 3 which modified TS 3/4.1.3.1, "Movable Control Assemblies," TS 3/4.1.3.2, "Position Indication Systems-Operating," TS 3/4.1.3.6, "Control Rod Insertion Limits," to allow the use of an alternate method of determining rod position for control rod M-6 in Control Bank C until the end of Cycle 22. The RPI system for control rod M-6 was repaired in June 2007; thus the associated TS License Amendment 230 revisions are no longer required.

### **DESCRIPTION OF PROPOSED TS CHANGES**

#### **Unit 4 Technical Specification Changes**

The proposed Unit 4 Technical Specification changes, regarding the removal of the notes for control rod F-8 in Shutdown Bank B, are summarized below. Marked-up and clean Technical Specification pages for the proposed changes are provided as Attachments 3 and 4.

For TS Limiting Condition for Operation (LCO) 3.1.3.1, Movable Control Assemblies, delete the indications for the note "\*\*\*" and the following note is removed:

\*\*\* During Unit 4 Cycle 21, the position of Rod F-8 Shutdown Bank B will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed."

For TS Surveillance Requirement of 4.1.3.1.1, the indications for the notes “\*\*” and “\*\*\*” and the following notes are removed:

- “\*\* During Unit 4 Cycle 21, the position of Rod F-8 Shutdown Bank B will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed.”
- “\*\*\* During Unit 4 Cycle 21, the position of Rod F-8, Shutdown Bank B, may be monitored by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state and it will not provide an input into the Rod Position Deviation Monitor. The use of the alternate method for rod F-8 does not require the 4 hour comparison of demanded versus actual position per 4.1.3.1.1.”

For TS LCO 3.1.3.2, Position Indicating Systems – Operating, the indications for the note “\*”, and the following note are removed:

- “\* During Unit 4 Cycle 21, the position of Rod F-8 Shutdown Bank B will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed.”

For TS Surveillance Requirements 4.1.3.2.1, and 4.1.3.2.2, the indication for the notes “\*\*” and “\*\*\*” and the following notes are removed:

- “\*\* During Unit 4 Cycle 21, the position of Rod F-8 Shutdown Bank B will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed.”
- “\*\*\* During Unit 4 Cycle 21, the position of Rod F-8, Shutdown Bank B, may be monitored by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state and it will not provide an input into the Rod Position Deviation Monitor. The use of the alternate method for rod F-8 does not require the 4 hour comparison of demanded versus actual position per 4.1.3.1.1.”

For TS Surveillance Requirement 4.1.3.5, Shutdown Rod Insertion Limit, the indication for the note “\*\*\*” and the following note are removed:

- “\*\*\* During Unit 4 Cycle 21, the position of Rod F-8 Shutdown Bank B will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed.”

### Unit 3 Technical Specification Changes

The proposed Unit 3 Technical Specification changes, regarding the removal of the notes for control rod M-6 in Control Bank C, are summarized below. Marked-up and clean Technical Specification pages for the proposed changes are provided as Attachments 3 and 4.

For TS LCO 3.1.3.1, Movable Control Assemblies, the indication for the note "\*\*\*" and the following note is removed:

- \*\*\* During Unit 3 Cycle 22, the position of Rod M-6 Control Bank C will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed."

For TS Surveillance Requirement of 4.1.3.1.1, the indications for the notes "\*" and "\*\*\*" and the following notes are removed:

- \* During Unit 3 Cycle 22, the position of Rod M-6 Control Bank C will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed."
- \*\*\* During Unit 3 Cycle 22, the position of Rod M-6, Control Bank C, may be monitored by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state and it will not provide an input into the Rod Position Deviation Monitor. The use of the alternate method for rod M-6 does not require the 4 hour comparison of demanded versus actual position per 4.1.3.1.1."

For TS LCO 3.1.3.2, Position Indicating Systems – Operating, the indication for the note "\*" and the following note are removed:

- \* During Unit 3 Cycle 22, the position of Rod M-6 Control Bank C will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed."

For TS Surveillance Requirements 4.1.3.2.1, and 4.1.3.2.2, the indication for the notes "\*" and "\*\*\*" and the following notes are removed:

- \* During Unit 3 Cycle 22, the position of Rod M-6 Control Bank C will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed."
- \*\*\* During Unit 3 Cycle 22, the position of Rod M-6, Control Bank C, may be monitored by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state and it will not provide an input into the Rod Position Deviation Monitor. The use of the alternate method for rod M-6 does not require the 4 hour comparison of demanded versus actual position per 4.1.3.2.1."

For TS Surveillance Requirement 4.1.3.6, the indication for the note "\*\*\*\*" and the following note are removed:

"During Unit 3 Cycle 22, the position of Rod M-6, Control Bank C, may be monitored by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state.

### **JUSTIFICATION FOR PROPOSED TS CHANGES**

Turkey Point Unit 4 License Amendment 221, issued August 20, 2004, approved the use of an alternate method of determining rod position for control rod F-8 in Shutdown Bank B. TS LCO and Surveillance Requirement sections 3/4.1.3.1, "Movable Control Assemblies," 3/4.1.3.2, "Position Indication Systems-Operating," 3/4.1.3.5 "Shutdown Rod Insertion Limit," were revised and remained in effect until the end of Cycle 21. Rod position indication repairs for control rod F-8 were performed during the Turkey Point Unit 4 Cycle 22 refueling outage in Spring 2005, thus the associated TS License Amendment No. 221 revisions are no longer necessary.

Turkey Point Unit 3 License Amendment 230, issued October 5, 2006, approved the use of an alternate method of determining rod position for control rod M-6 in Control Bank C. TS LCO and Surveillance Requirement sections 3/4.1.3.1, "Movable Control Assemblies," 3/4.1.3.2, "Position Indication Systems-Operating," 3/4.1.3.6, "Control Rod Insertion Limits," were revised and were to remain in effect until the end of Cycle 22. Rod position indication repairs for control rod M-6 were performed in June 2007; thus the associated TS License Amendment 230 revisions are no longer necessary.

**ATTACHMENT 2 TO L-2007-131**

**DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION**



## **DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION**

The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

Florida Power and Light Company (FPL) has concluded that the proposed amendments to the Turkey Point Units 3 and 4 operating licenses do not involve a significant hazards consideration. In support of this determination, an evaluation of each of the three standards set forth in 10 CFR 50.92 is provided below.

1. Will operation of the facility in accordance with this proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

No. The proposed amendments do not involve a significant increase in the probability or consequences of an accident previously evaluated because the proposed amendments are purely administrative in nature. The proposed amendments do not make substantive changes to the Technical Specifications and do not affect any assumptions contained in plant safety analyses, the physical design and/or operation of the plant; and they do not affect the Technical Specifications that preserve safety analysis assumptions.

Therefore, the proposed changes do not affect the probability or consequences of accidents previously analyzed.

2. Will operation of the facility in accordance with this proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

No. The proposed administrative changes to the Technical Specifications do not create the possibility of a new or different kind of accident from any previously evaluated, since the proposed amendments will not change the physical plant or the modes of plant operation defined in the facility operating licenses. No new failure mode is introduced due to the proposed administrative changes, since the proposed changes do not involve the addition or modification of equipment, nor do they alter the design or operation of affected plant systems, structures, or components.

Therefore, operation of the facility in accordance with the proposed amendments would not create the possibility of a new or different kind of accident from any previously evaluated.

3. Will operation of the facility in accordance with this proposed change involve a significant reduction in a margin of safety?

No. The operating limits and functional capabilities of the affected systems, structures, and components are unchanged by the proposed amendment. The changed Technical Specifications remove notes which are no longer in effect and do not reduce any of the margins of safety.

Therefore, operation of the facility in accordance with the proposed amendments would not involve a significant reduction in the margin of safety.

Based on the reasoning presented above, FPL has determined that the requested changes involve no significant hazards consideration.

### **Environmental Consideration**

The proposed license amendments are administrative in nature and do not affect the physical aspect or operation of components or structures within the restricted area as defined in 10 CFR Part 20. The proposed amendments involve no significant increase in the amounts and no significant increase in the types of any effluents that may be released off site, and no significant increase in individual or cumulative occupational radiation exposure. FPL has concluded that the proposed amendments involve no significant hazards consideration and therefore, meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Hence, pursuant to 10 CFR 51.22(b), an environmental impact statement or environmental assessment need not be prepared in connection with issuance of the amendments.

### **Conclusion**

FPL concludes, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be detrimental to the common defense and security or to the health and safety of the public.

**ATTACHMENT 3 TO L-2007-131**

**TURKEY POINT UNITS 3 AND 4 MARKED UP TECHNICAL SPECIFICATION PAGES**

Pages 3/4 1-17

Pages 3/4 1-18

Pages 3/4 1-20

Pages 3/4 1-21

Pages 3/4 1-25

Pages 3/4 1-26

## REACTIVITY CONTROL SYSTEMS

### 3/4.1.3 MOVABLE CONTROL ASSEMBLIES

#### GROUP HEIGHT

#### LIMITING CONDITION FOR OPERATION

3.1.3.1 All full length (shutdown and control) rods shall be OPERABLE and positioned within the Allowed Rod Misalignment between the Analog Rod Position Indication<sup>\*\*</sup> and the group step counter demand position within one hour after rod motion. The Allowed Rod Misalignment shall be defined as:

- a. for THERMAL POWER less than or equal to 90% of RATED THERMAL POWER, the Allowed Rod Misalignment is  $\pm 18$  steps, and
- b. for THERMAL POWER greater than 90% of RATED THERMAL POWER, the Allowed Rod Misalignment is  $\pm 12$  steps.

APPLICABILITY: MODES 1\* and 2\*

#### ACTION:

- a. With one or more full length rods inoperable due to being immovable as a result of excessive friction or mechanical interference or known to be untrippable, determine that the SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is satisfied within 1 hour and be in HOT STANDBY within 6 hours.
- b. With more than one full length rod inoperable or misaligned from the group step counter demand position by more than  $\pm 12$  steps and THERMAL POWER greater than 90% of RATED THERMAL POWER, within 1 hour either:
  - 1. Restore all indicated rod positions to within the Allowed Rod Misalignment, or
  - 2. Reduce THERMAL POWER to less than 90% of RATED THERMAL POWER and confirm that all indicated rod positions are within the Allowed Rod Misalignment, or
  - 3. Be in HOT STANDBY within the following 6 hours.
- c. With more than one full length rod inoperable or misaligned from the group step counter demand position by more than  $\pm 18$  steps and THERMAL POWER less than or equal to 90% of RATED THERMAL POWER, within 1 hour either:
  - 1. Restore all indicated rod positions to within the Allowed Rod Misalignment, or
  - 2. Be in HOT STANDBY within the following 6 hours.

\* See Special Test Exceptions 3.10.2 and 3.10.3.

\*\*During Unit 4 Cycle 21, the position of Rod F-8 Shutdown Bank B will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed, until the repair of the indication system for this rod is completed.

\*\*During Unit 3 Cycle 22, the position of Rod M-6, Control Bank C will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed.

REACTIVITY CONTROL SYSTEMS  
LIMITING CONDITION FOR OPERATION (Continued)

- d. With one full length rod inoperable due to causes other than addressed by ACTION a, above, or misaligned from its group step counter demand position by more than the Allowed Rod Misalignment of Specification 3.1.3.1, POWER OPERATION may continue provided that within one hour either:
1. The rod is restored to OPERABLE status within the Allowed Rod Misalignment of Specification 3.1.3.1, or
  2. The remainder of the rods in the bank with the inoperable rod are aligned to within the Allowed Rod Misalignment of Specification 3.1.3.1 of the inoperable rod while maintaining the rod sequence and insertion limits of Specification 3.1.3.6; the THERMAL POWER level shall be restricted pursuant to Specification 3.1.3.6 during subsequent operation, or
  3. The rod is declared inoperable and the SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is satisfied. POWER OPERATION may then continue provided that:
    - a) The THERMAL POWER level is reduced to less than or equal to 75% of RATED THERMAL POWER within one hour and within the next 4 hours the power range neutron flux high trip setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER. THERMAL POWER shall be maintained less than or equal to 75% of RATED THERMAL POWER until compliance with ACTIONS 3.1.3.1.d.3.c and 3.1.3.1.d.3.d below are demonstrated, and
    - b) The SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is determined at least once per 12 hours, and
    - c) A power distribution map is obtained from the movable incore detectors and  $F_Q(Z)$  and  $F_{\Delta H}^N$  are verified to be within their limits within 72 hours, and
    - d) A reevaluation of each accident analysis of Table 3.1-1 is performed within 5 days; this reevaluation shall confirm that the previously analyzed results of these accidents remain valid for the duration of operation under these conditions.

SURVEILLANCE REQUIREMENTS

4.1.3.1.1 The position <sup>Delete</sup>Of each full length rod shall be determined to be within the Allowed Rod Misalignment of the group step counter demand position at least once per 12 hours (allowing for one hour thermal soak after rod motion) except during time intervals when the Rod Position Deviation Monitor is inoperable, then verify the group positions at least once per 4 hours. <sup>\*\*</sup> ~~Delete~~

4.1.3.1.2 Each full length rod not fully inserted in the core shall be determined to be OPERABLE by movement of at least 10 steps in any one direction at least once per 92 days.

- Delete*
- \* During Unit 4 Cycle 21, the position of Rod F-8 Shutdown Bank B will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed.

\*\* During Unit 4 Cycle 21, the position of Rod F-8, Shutdown Bank B, may be monitored by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state and it will not provide an input into the Rod Position Deviation Monitor. The use of the alternate method for Rod F-8 does not require the 4 hour comparison of demanded versus actual position per 4.1.3.1.1.

\* During Unit 3 Cycle 22, the position of Rod M-6, Control Bank C will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed.

\*\* During Unit 3 Cycle 22, the position of Rod M-6, Control Bank C, may be monitored by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state and it will not provide an input into the Rod Position Deviation Monitor. The use of the alternate method for Rod M-6 does not require the 4 hour comparison of demanded versus actual position per 4.1.3.1.1.

## REACTIVITY CONTROL SYSTEMS

### POSITION INDICATION SYSTEMS - OPERATING

#### LIMITING CONDITION FOR OPERATION (Continued)

3.1.3.2 The Analog Rod Position Indication System\* and the Demand Position Indication System shall be OPERABLE and capable of determining the respective actual and demanded shutdown and control rod positions as follows:

- a. Analog rod position indicators, within one hour after rod motion (allowance for thermal soak);

All Shutdown Banks: within the Allowed Rod Misalignment of Specification 3.1.3.1 of the group demand counters for withdrawal ranges of 0-30 steps and 200-All Rods Out as defined in the Core Operating Limits Report.

Control Bank A and B: within the Allowed Rod Misalignment of Specification 3.1.3.1 of the group demand counters for withdrawal ranges of 0-30 steps and 200-All Rods Out as defined in the Core Operating Limits Report.

Control Banks C and D: within the Allowed Rod Misalignment of Specification 3.1.3.1 of the group demand counters for withdrawal range of 0-All Rods Out as defined in the Core Operating Limits Report.

- b. Group demand counters;  $\pm 2$  steps.

APPLICABILITY: MODES 1 and 2.

#### ACTION:

- a. With a maximum of one analog rod position indicator per bank inoperable either:
1. Determine the position of the non-indicating rod(s) indirectly by the movable incore detectors at least once per 8 hours and within one hour after any motion of the non-indicating rod which exceeds 24 steps in one direction since the last determination of the rod's position, or
  2. Reduce THERMAL POWER to less than 75% of RATED THERMAL POWER within 8 hours.
- b. With a maximum of one demand position indicator per bank inoperable either:
1. Verify that all analog rod position indicators for the affected bank are OPERABLE and that the most withdrawn rod and the least withdrawn rod of the bank are within the Allowed Rod Misalignment of Specification 3.1.3.1 at least once per 8 hours, or
  2. Reduce THERMAL POWER to less than 75% of RATED THERMAL POWER within 8 hours.

\* During Unit 4 Cycle 21, the position of Rod F-8 Shutdown Bank B will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed.

\* During Unit 3 Cycle 22, the position of Rod M-6, Control Bank C will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed.

## REACTIVITY CONTROL SYSTEMS

### SURVEILLANCE REQUIREMENTS

4.1.3.2.1 Each analog rod position indicator<sup>\*</sup> shall be determined to be OPERABLE by verifying that the Demand Position Indication System and the Analog Rod Position Indication System<sup>\*</sup> agree within the Allowed Rod Misalignment of Specification 3.1.3.1 (allowing for one hour thermal soak after rod motion) at least once per 12 hours except during time intervals when the Rod Position Deviation Monitor<sup>\*\*</sup> is inoperable, then compare the Demand Position Indication System and the Analog Rod Position Indication System at least once per 4 hours.

4.1.3.2.2 Each of the above required analog rod position indicator(s)<sup>\*</sup> shall be determined to be OPERABLE by performance of a CHANNEL CHECK, CHANNEL CALIBRATION and ANALOG CHANNEL OPERATIONAL TEST performed in accordance with Table 4.1-1.

- Delete*
- \* During Unit 4 Cycle 21, the position of Rod F-8 Shutdown Bank B will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed.
  - \*\* During Unit 4 Cycle 21, the position of Rod F-8, Shutdown Bank B, may be monitored by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state and it will not provide an input into the Rod Position Deviation Monitor. The use of the alternate method for Rod F-8 does not require the 4 hour comparison of demanded versus actual position per 4.1.3.2.1.
  - \* During Unit 3 Cycle 22, the position of Rod M-6, Control Bank C will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed.
  - \*\* During Unit 3 Cycle 22, the position of Rod M-6, Control Bank C, may be monitored by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state and it will not provide an input into the Rod Position Deviation Monitor. The use of the alternate method for Rod M-6 does not require the 4 hour comparison of demanded versus actual position per 4.1.3.2.1.

## REACTIVITY CONTROL SYSTEMS

### SHUTDOWN ROD INSERTION LIMIT

#### LIMITING CONDITION FOR OPERATION

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3.1.3.5 All shutdown rods shall be fully withdrawn.

APPLICABILITY: MODES 1\* and 2\* \*\*

ACTION:

With a maximum of one shutdown rod not fully withdrawn, except for surveillance testing pursuant to Specification 4.1.3.1.2, within 1 hour either:

- a. Fully withdraw the rod, or
- b. Declare the rod to be inoperable and apply Specification 3.1.3.1.

#### SURVEILLANCE REQUIREMENTS

*Delete*

4.1.3.5 Each shutdown rod ~~\*\*\*~~ shall be determined to be fully withdrawn:

- a. Within 15 minutes prior to withdrawal of any rods in control banks A, B, C, or D during an approach to reactor criticality, and
- b. At least once per 12 hours thereafter.

\*See Special Test Exceptions Specifications 3.10.2 and 3.10.3.

\*\*With  $K_{eff}$  greater than or equal to 1.0

\*\*\* During Unit 4 Cycle 21, the position of Rod F-8 Shutdown Bank B will be determined every 8 hours by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state, until the repair of the indication system for this rod is completed.

*Delete*



## REACTIVITY CONTROL SYSTEMS

### CONTROL ROD INSERTION LIMITS

#### LIMITING CONDITION FOR OPERATION

3.1.3.6 The control banks shall be limited in physical insertion specified in the Rod Bank Insertion Limits curve, defined in the CORE OPERATING LIMITS REPORT.

APPLICABILITY: MODES 1\* and 2\* \*\*

#### ACTION:

With the control banks inserted beyond the above insertion limits, except for surveillance testing pursuant to Specification 4.1.3.1.2 either:

- a. Restore the control banks to within the limits within 2 hours, or
- b. Reduce THERMAL POWER within two hours to less than or equal to that fraction of RATED THERMAL POWER which is allowed by the bank position specified in the Rod Bank Insertion Limits curve, defined in the CORE OPERATING LIMITS REPORT, or
- c. Be in at least HOT STANDBY within 6 hours.

#### SURVEILLANCE REQUIREMENTS

4.1.3.6 The position of each control bank shall be determined to be within the insertion limits at least once per 12 hours, except during time intervals when the Rod Insertion Limit Monitor is inoperable, then verify the individual rod positions\*\*\* at least once per 4 hours.

Delete

\* See Special Test Exceptions Specifications 3.10.2 and 3.10.3.

\*\* With  $K_{eff}$  greater than or equal to 1.0

\*\*\* During Unit 3 Cycle 22, the position of Rod M-6, Control Bank C, may be monitored by verifying gripper coil parameters of the Control Rod Drive Mechanism to determine it has not changed state.

Delete

**ATTACHMENT 4 TO L-2007-131**

**TURKEY POINT UNITS 3 AND 4 CLEAN TECHNICAL SPECIFICATION PAGES**

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## REACTIVITY CONTROL SYSTEMS

### 3/4.1.3 MOVABLE CONTROL ASSEMBLIES

#### GROUP HEIGHT

#### LIMITING CONDITION FOR OPERATION

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3.1.3.1 All full length (shutdown and control) rods shall be OPERABLE and positioned within the Allowed Rod Misalignment between the Analog Rod Position Indication and the group step counter demand position within one hour after rod motion. The Allowed Rod Misalignment shall be defined as:

- a. for THERMAL POWER less than or equal to 90% of RATED THERMAL POWER, the Allowed Rod Misalignment is  $\pm 18$  steps, and
- b. for THERMAL POWER greater than 90% of RATED THERMAL POWER, the Allowed Rod Misalignment is  $\pm 12$  steps.

APPLICABILITY: MODES 1\* and 2\*

#### ACTION:

- a. With one or more full length rods inoperable due to being immovable as a result of excessive friction or mechanical interference or known to be untrippable, determine that the SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is satisfied within 1 hour and be in HOT STANDBY within 6 hours.
- b. With more than one full length rod inoperable or misaligned from the group step counter demand position by more than  $\pm 12$  steps and THERMAL POWER greater than 90% of RATED THERMAL POWER, within 1 hour either:
  1. Restore all indicated rod positions to within the Allowed Rod Misalignment, or
  2. Reduce THERMAL POWER to less than 90% of RATED THERMAL POWER and confirm that all indicated rod positions are within the Allowed Rod Misalignment, or
  3. Be in HOT STANDBY within the following 6 hours.
- c. With more than one full length rod inoperable or misaligned from the group step counter demand position by more than  $\pm 18$  steps and THERMAL POWER less than or equal to 90% of RATED THERMAL POWER, within 1 hour either:
  1. Restore all indicated rod positions to within the Allowed Rod Misalignment, or
  2. Be in HOT STANDBY within the following 6 hours.

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\* See Special Test Exceptions 3.10.2 and 3.10.3.

**REACTIVITY CONTROL SYSTEMS**  
**LIMITING CONDITION FOR OPERATION (Continued)**

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- d. With one full length rod inoperable due to causes other than addressed by ACTION a, above, or misaligned from its group step counter demand position by more than the Allowed Rod Misalignment of Specification 3.1.3.1, POWER OPERATION may continue provided that within one hour either:
1. The rod is restored to OPERABLE status within the Allowed Rod Misalignment of Specification 3.1.3.1, or
  2. The remainder of the rods in the bank with the inoperable rod are aligned to within the Allowed Rod Misalignment of Specification 3.1.3.1 of the inoperable rod while maintaining the rod sequence and insertion limits of Specification 3.1.3.6; the THERMAL POWER level shall be restricted pursuant to Specification 3.1.3.6 during subsequent operation, or
  3. The rod is declared inoperable and the SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is satisfied. POWER OPERATION may then continue provided that:
    - a) The THERMAL POWER level is reduced to less than or equal to 75% of RATED THERMAL POWER within one hour and within the next 4 hours the power range neutron flux high trip setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER. THERMAL POWER shall be maintained less than or equal to 75% of RATED THERMAL POWER until compliance with ACTIONS 3.1.3.1.d.3.c and 3.1.3.1.d.3.d below are demonstrated, and
    - b) The SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is determined at least once per 12 hours, and
    - c) A power distribution map is obtained from the movable incore detectors and  $F_Q(Z)$  and  $F_{\Delta H}^N$  are verified to be within their limits within 72 hours, and
    - d) A reevaluation of each accident analysis of Table 3.1-1 is performed within 5 days; this reevaluation shall confirm that the previously analyzed results of these accidents remain valid for the duration of operation under these conditions.

**SURVEILLANCE REQUIREMENTS**

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4.1.3.1.1 The position of each full length rod shall be determined to be within the Allowed Rod Misalignment of the group step counter demand position at least once per 12 hours (allowing for one hour thermal soak after rod motion) except during time intervals when the Rod Position Deviation Monitor is inoperable, then verify the group positions at least once per 4 hours.

4.1.3.1.2 Each full length rod not fully inserted in the core shall be determined to be OPERABLE by movement of at least 10 steps in any one direction at least once per 92 days.

## REACTIVITY CONTROL SYSTEMS

### POSITION INDICATION SYSTEMS - OPERATING

#### LIMITING CONDITION FOR OPERATION (Continued)

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3.1.3.2 The Analog Rod Position Indication System and the Demand Position Indication System shall be OPERABLE and capable of determining the respective actual and demanded shutdown and control rod positions as follows:

- a. Analog rod position indicators, within one hour after rod motion (allowance for thermal soak);

All Shutdown Banks: within the Allowed Rod Misalignment of Specification 3.1.3.1 of the group demand counters for withdrawal ranges of 0-30 steps and 200-All Rods Out as defined in the Core Operating Limits Report.

Control Bank A and B: within the Allowed Rod Misalignment of Specification 3.1.3.1 of the group demand counters for withdrawal ranges of 0-30 steps and 200-All Rods Out as defined in the Core Operating Limits Report.

Control Banks C and D: within the Allowed Rod Misalignment of Specification 3.1.3.1 of the group demand counters for withdrawal range of 0-All Rods Out as defined in the Core Operating Limits Report.

- b. Group demand counters;  $\pm 2$  steps.

APPLICABILITY: MODES 1 and 2.

#### ACTION:

- a. With a maximum of one analog rod position indicator per bank inoperable either:

1. Determine the position of the non-indicating rod(s) indirectly by the movable incore detectors at least once per 8 hours and within one hour after any motion of the non-indicating rod which exceeds 24 steps in one direction since the last determination of the rod's position, or
2. Reduce THERMAL POWER to less than 75% of RATED THERMAL POWER within 8 hours.

- b. With a maximum of one demand position indicator per bank inoperable either:

1. Verify that all analog rod position indicators for the affected bank are OPERABLE and that the most withdrawn rod and the least withdrawn rod of the bank are within the Allowed Rod Misalignment of Specification 3.1.3.1 at least once per 8 hours, or
2. Reduce THERMAL POWER to less than 75% of RATED THERMAL POWER within 8 hours.

## REACTIVITY CONTROL SYSTEMS

### SURVEILLANCE REQUIREMENTS

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4.1.3.2.1 Each analog rod position indicator shall be determined to be OPERABLE by verifying that the Demand Position Indication System and the Analog Rod Position Indication System agree within the Allowed Rod Misalignment of Specification 3.1.3.1 (allowing for one hour thermal soak after rod motion) at least once per 12 hours except during time intervals when the Rod Position Deviation Monitor is inoperable, then compare the Demand Position Indication System and the Analog Rod Position Indication System at least once per 4 hours.

4.1.3.2.2 Each of the above required analog rod position indicator(s) shall be determined to be OPERABLE by performance of a CHANNEL CHECK, CHANNEL CALIBRATION and ANALOG CHANNEL OPERATIONAL TEST performed in accordance with Table 4.1-1.

## REACTIVITY CONTROL SYSTEMS

### SHUTDOWN ROD INSERTION LIMIT

#### LIMITING CONDITION FOR OPERATION

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3.1.3.5 All shutdown rods shall be fully withdrawn.

APPLICABILITY: MODES 1\* and 2\* \*\*

#### ACTION:

With a maximum of one shutdown rod not fully withdrawn, except for surveillance testing pursuant to Specification 4.1.3.1.2, within 1 hour either:

- a. Fully withdraw the rod, or
- b. Declare the rod to be inoperable and apply Specification 3.1.3.1.

#### SURVEILLANCE REQUIREMENTS

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4.1.3.5 Each shutdown rod shall be determined to be fully withdrawn:

- a. Within 15 minutes prior to withdrawal of any rods in control banks A, B, C, or D during an approach to reactor criticality, and
- b. At least once per 12 hours thereafter.

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\*See Special Test Exceptions Specifications 3.10.2 and 3.10.3.

\*\*With  $K_{eff}$  greater than or equal to 1.0

## REACTIVITY CONTROL SYSTEMS

### CONTROL ROD INSERTION LIMITS

#### LIMITING CONDITION FOR OPERATION

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3.1.3.6 The control banks shall be limited in physical insertion specified in the Rod Bank Insertion Limits curve, defined in the CORE OPERATING LIMITS REPORT.

APPLICABILITY: MODES 1\* and 2\* \*\*

#### ACTION:

With the control banks inserted beyond the above insertion limits, except for surveillance testing pursuant to Specification 4.1.3.1.2 either:

- a. Restore the control banks to within the limits within 2 hours, or
- b. Reduce THERMAL POWER within two hours to less than or equal to that fraction of RATED THERMAL POWER which is allowed by the bank position specified in the Rod Bank Insertion Limits curve, defined in the CORE OPERATING LIMITS REPORT, or
- c. Be in at least HOT STANDBY within 6 hours.

#### SURVEILLANCE REQUIREMENTS

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4.1.3.6 The position of each control bank shall be determined to be within the insertion limits at least once per 12 hours, except during time intervals when the Rod Insertion Limit Monitor is inoperable, then verify the individual rod positions at least once per 4 hours.

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\* See Special Test Exceptions Specifications 3.10.2 and 3.10.3.

\*\* With  $K_{eff}$  greater than or equal to 1.0