Entergy

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Site Vice President

May 24, 2005

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

SUBJECT: Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
Docket No. 50-293
License No. DPR-35

Technical Specifications Amendment Request for Rod Worth Minimizer (RWM) Bypass Allowances

LETTER NUMBER: 2.05.006

Dear Sir or Madam:

Pursuant to 10CFR50.90, Entergy Nuclear Operations Inc. (Entergy) hereby proposes to amend its Facility Operating License, DPR-35. The proposed changes would revise the Operating License Technical Specifications (TS) allowances to bypass the rod worth minimizer consistent with the allowances recommended in the Standard Technical Specifications (NUREG-1433, Revision 3) and changes previously approved by the NRC for other boiling water reactors. Entergy has reviewed the proposed amendment in accordance with 10CFR50.92 and concludes it does not involve a significant hazards consideration.

Entergy requests approval of the proposed amendment by June 1, 2006. Once approved, the amendment shall be implemented within 60 days.

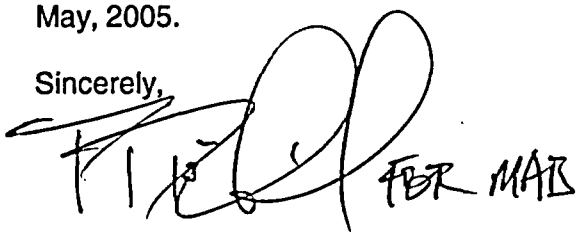
There are no commitments contained in this letter.

If you have any questions or require additional information, please contact Bryan Ford at (508) 830-8403.

A001

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 24th day of May, 2005.

Sincerely,



Michael A. Balduzzi

Enclosure: Evaluation of the proposed change – 5 pages

Attachments: 1. Proposed Technical Specification Changes (mark-up) – 10 pages

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ENCLOSURE

EVALUATION OF THE PROPOSED CHANGE

ENCLOSURE

Evaluation of the Proposed Change

Subject: Technical Specifications Amendment Request for Rod Worth Minimizer (RWM) Bypass Allowances

1. DESCRIPTION

2. PROPOSED CHANGES

3. BACKGROUND

4. TECHNICAL ANALYSIS

5. REGULATORY SAFETY ANALYSIS

   5.1 No Significant Hazards Consideration
   5.2 Environmental Consideration

6. PRECEDENTS

7. REFERENCES

1. Description

Entergy Nuclear Operations, Inc. (Entergy) is requesting to amend Operating License DPR-35 for Pilgrim Nuclear Power Station (PNPS). The proposed changes would revise the Operating License Technical Specifications (TS) allowances to bypass the rod worth minimizer modeled after the allowances recommended in the Standard Technical Specifications (STS), NUREG-1433, Revision 3 (Reference 1). These changes result in additional consistency with STS and with changes previously approved by the NRC for other boiling water reactors.

2. Proposed Changes

2.1 TS 3.3.F, Action A.2.1 is renumbered to A.2.1.2 and the "12 month" period is revised to "calendar year." A new option A.2.1.1 is added stating:

> "Immediately verify $\geq$ 12 rods withdrawn, or"

2.2 New TS 3/4.14.G, "Control Rod Testing – Operating," is added, including Applicability, Actions, and Surveillance Requirements consistent with NUREG-1433, Specification 3.10.7 as detailed in Attachment 1. Proposed Bases drafts associated with these changes are also provided for information. This specification provides that:

> "The requirements of LCO 3.2.H, "Rod Pattern Control," may be suspended to allow performance of reactivity margin demonstrations, control rod scram time testing, control rod friction testing, and the Startup Test Program, provided the banked position withdrawal sequence (BPWS) requirements of SR 4.3.F.3 are changed to require the control rod sequence to conform to the specified test sequence or that the RWM is bypassed; the requirements of LCO 3.3.F, "Rod Worth Minimizer," are suspended; and conformance to the approved control rod sequence for the specified test is verified by a second licensed operator or other qualified member of the technical staff."

2.3 Include the placeholder "Not Used" for specification numbers 3/4.14.B through F. Update the Table of Contents to reflect the changes described above and to include an "A." in the Surveillance Requirements column corresponding to TS 3/4.14.A.

3. Background

3.1 The design basis accident that encompasses the consequences of a reactivity excursion is the control rod drop accident. For this accident, the reactor is assumed to be at a control rod pattern corresponding to the maximum incremental rod worth. The rod worth minimizer or plant operators are functioning within the constraints of the banked position withdrawal sequences (BPWS). The accident analysis assumes that the control rod resulting in the maximum incremental reactivity worth addition at any time in core life, under any BPWS operating condition becomes decoupled from the control rod drive. The operator selects and withdraws the drive of the decoupled rod along with the other control rods assigned to the banked-position group such that the proper core geometry for the maximum incremental rod worth exists. The decoupled control rod sticks in the fully inserted position and later becomes unstuck and drops at the maximum velocity. The reactor goes on a positive period and the initial power burst is terminated by the Doppler reactivity feedback. The APRM 120% power signal scrams the reactor.

Pilgrim Station has incorporated the Improved BPWS process for reactor shutdowns (NEDO 33091-A), which is an optional BPWS that may be used during planned shutdowns. For Pilgrim,

TS Bases were updated but no TS changes were required. The Improved BPWS eliminates the possibility of the control rod drop accident thereby making it a non-credible event.

The rod worth minimizer (RWM) function assists and supplements the operator with an effective backup control rod monitoring routine that enforces adherence to established startup, shutdown, and low power level control rod procedures. The computer prevents the operator from establishing control rod patterns that are not consistent with pre-stored RWM sequences by initiating appropriate rod select block, rod withdrawal block, and rod insert block interlock signals to the reactor manual control systems rod block circuitry. The RWM sequences stored in the computer memory are based on control rod withdrawal procedures designed to limit and, thereby, minimize individual control rod worths to acceptable levels as determined by the design basis rod drop accident.

The RWM function does not interfere with normal reactor operation, and in the event of a failure does not itself cause rod patterns to be established which would violate the above objective. The RWM function may be bypassed and its rod block function disabled only by specific procedural control initiated by the operator.

3.2 While operating below 20% rated thermal power, control rod patterns are required to be controlled by the operator and/or the rod worth minimizer (RWM) such that only the specified banked position withdrawal sequences (BPWS) required by TS 3.3.H, "Rod Pattern Control" are permitted. However, during these conditions, control rod testing is sometimes desired that may result in control rod patterns not in compliance with the BPWS. These tests include reactivity margin demonstrations, control rod scram time testing, control rod friction testing, and testing performed during the Startup Test Program. Specifically, Technical Specification Surveillance Requirements SR 4.3.C.1 and SR 4.3.C.2 require control rod scram testing, typically while in Run and/or Startup Modes. Additional non-TS control rod tests may also be desired during power operation. When this testing is to be performed below 20% rated thermal power, it would be necessary for an exemption to the requirements of TS 3.3.H.

4. Technical Analysis

4.1 In letter dated October 16, 2000, the NRC approved Amendment No. 186 to the PNPS TS (Reference 2). This amendment approved allowances for continued rod movement with the RWM bypassed. In the associated Safety Evaluation, the NRC stated:

> "LCO 3.3.F will continue to require operability of the RWM below 20% RTP, but it would allow movements once per 12 months if a second licensed operator or other qualified member of the technical staff verifies movements. The RWM is designed to aid the operator by not allowing rod patterns not considered as part of the BPWS analyses. This function can also be performed by a visual inspection by another qualified staff member. The reason for the once per year restriction is to ensure that the RWM is maintained operable as much as possible."

The Standard Technical Specifications, NUREG-1433, and various plant-specific amendments (e.g., Reference 3), provide this same restriction to ensure that the RWM is maintained operable as much as possible with two differences; (1) the "once per 12 months" is stated as "once in the last calendar year," and (2) they also include an alternative provision allowing verification that $\geq$ 12 control rods have been withdrawn. Making the proposed changes to the PNPS TS to adopt the standard TS wording and provisions would continue to apply restrictions to commencing startup for the initial 12 control rod withdrawals tracked on a calendar year basis. This continues to provide reasonable assurance that the RWM would remain operable as much as possible.

However, should the RWM become inoperable later during the startup or during operation with a significant number of control rods withdrawn, the proposed alternative allowance will provide for a second licensed operator or other qualified member of the technical staff to verify movements to assure continued safe operations. This second verification is the same procedural control imposed for existing allowances to bypass the RWM in TS 3.3.F Actions A.2.2 and B.2. The second verification will provide the backup function to assist and supplement the operator to assure adherence to established startup, shutdown, and low power level control rod procedures.

The tracking basis of calendar year and the alternative flexibility are allowances recommended by Standard Technical Specifications, NUREG-1433, Revision 3, as well as having been approved for existing operating facilities.

4.2 The proposed 3/4.14.G Special Operations Specification being added allows the requirements of TS 3/4.3.H, "Rod Pattern Control," to be suspended for performance of reactivity margin testing, control rod scram time testing, and control rod friction testing. To continue to provide adequate assurance of acceptable control rod patterns, this allowance requires one of two options be implemented. First, the SR 4.3.F.3 requirement for programming the rod worth minimizer (RWM) with banked position withdrawal sequence (BPWS) constraints may be changed to require the control rod sequence to conform to the specified test sequence; thus allowing the RWM to continue to be considered operable and provide automatic backup to proper adherence to the specified sequence. Alternately, the RWM maybe bypassed, with the requirements of LCO 3.3.F suspended, and conformance to the approved control rod sequence for the specified test verified by a second licensed operator or other qualified member of the technical staff. Either of these two requirements for the Special Operation can effectively limit the potential amount and rate of reactivity increase that could occur during a control rod drop accident (CRDA). These options are consistent with the existing requirements and allowed actions of TS 3.3.F, which requires either an operable RWM or allows for control rod movement to be verified by a second licensed operator or other qualified member of the technical staff.

Control rod withdrawal sequences define the potential initial conditions for the CRDA analyses. The RWM provides backup to operator control of the withdrawal sequences to ensure the initial conditions of the CRDA analyses are not violated. For special sequences developed for control rod testing, the initial control rod patterns assumed in the safety analysis, i.e., the control rod patterns of BPWS, may not be preserved. Therefore special CRDA analyses are required to demonstrate that these special sequences will not result in unacceptable consequences, should a CRDA occur during the testing. These analyses, performed in accordance with an NRC approved methodology, are dependent on the specific test being performed. The procedures that implement these special operations, and the analyses that support the test sequences, are controlled by the provisions of 10 CFR 50.59, "Changes, tests and experiments."

This added flexibility for special test control rod sequences is an allowance recommended by Standard Technical Specifications, NUREG-1433, Revision 3, as well as the predecessor standard, NUREG-0123. This provision has also been added by amendment to existing operating facilities (e.g., Reference 3).

5. Regulatory Safety Analysis

5.1 No Significant Hazards Consideration

Entergy Nuclear Operations, Inc. (Entergy) is proposing to modify the Pilgrim Technical Specifications (TS) allowances to bypass the rod worth minimizer consistent with the allowances recommended in the Standard Technical Specifications (NUREG-1433, Revision 3).

Entergy has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No. The proposed special operation allowances do not involve the modification of any plant equipment or affect basic plant operation. The relevant design basis accident is the control rod drop accident (CRDA), which involves multiple failures to initiate the event. Control rod decoupling and remaining stuck full-in while its drive mechanism is withdrawn are required initiators. The proposed special operations have no adverse impact on control rod coupling or control rod performance. As such, there is no significant increase in the probability of an accident previously evaluated.

   The CRDA analysis consequences and related initial conditions remain unchanged when invoking the proposed special operation allowance. The control rod withdrawal sequence is assumed to limit individual control rod worths as another initial condition for the CRDA. However, consistent with existing requirements for control rod withdrawal operations, all control rod withdrawal sequences are analyzed to meet this criterion and are implemented under the control of the rod worth minimizer or by independent verification by a second licensed operator or other qualified member of the technical staff. The consequences of analyzed events are therefore not affected. Therefore, the proposed change does not involve a significant increase in the consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

   Response: No. The proposed change does not involve any physical alteration of plant equipment and does not change the method by which any safety-related system performs its function. As such, no new or different types of equipment will be installed, and the basic operation of installed equipment is unchanged. The methods governing plant operation and testing remain consistent with current safety analysis assumptions. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

   Response: No. The proposed special operation allowances do not involve the modification of any plant equipment or affect basic plant operation. The relevant design basis accident is the control rod drop accident (CRDA), which involves

multiple failures to initiate the event. Additionally, CRDA analysis consequences and related initial conditions remain unchanged when invoking the proposed special operation allowance. These changes do not negate any existing requirement, and do not adversely affect existing plant safety margins or the reliability of the equipment assumed to operate in the safety analysis. As such, there are no changes being made to safety analysis assumptions, safety limits or safety system settings that would adversely affect plant safety as a result of the proposed change. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, Pilgrim concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5.2 Environmental Consideration

A review has determined that the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need to be prepared in connection with the proposed amendment.

6. Precedents

The NRC has approved similar changes for allowances to bypass the rod worth minimizer, including the proposed Special Operations allowances (e.g., Reference 3).

7. References

1. NUREG-1433, Rev. 3, "Standard Technical Specifications, General Electric Plants, BWR/4"

2. Pilgrim Nuclear Power Station Amendment No. 186, dated October 16, 2000

3. James A. FitzPatrick Nuclear Power Plant Amendment No. 221 dated December 28, 1994.

ATTACHMENT 1

PROPOSED TECHNICAL SPECIFICATION AND BASES

CHANGES (MARK-UP)

INSERT → A.

INSERT 3/4.14.B through 3/4.14.G as shown here

LIMITING CONDITIONS FOR OPERATION

3.3 REACTIVITY CONTROL (continued)

F. Rod Worth Minimizer (RWM)

LCO 3.3.F

The RWM shall be OPERABLE.

APPLICABILITY:

RUN and STARTUP MODES with reactor thermal power ≤ 20 % RTP.

ACTIONS:

A. RWM inoperable during reactor startup.

1 Immediately suspend control rod movement except by scram.

OR

2.1 Immediately verify by administrative methods that startup with RWM inoperable has not been performed in the last ~~12 months.~~ Calendar year.

AND

2.2 Verify movement of control rods is in compliance with BPWS by a second licensed operator or other qualified member of the technical staff during control rod movement.

B. RWM inoperable during reactor shutdown.

1 Verify movement of control rods is in accordance with BPWS by a second licensed operator or other qualified member of the technical staff during control rod movement.

SURVEILLANCE REQUIREMENTS

4.3 REACTIVITY CONTROL (continued)

F. Rod Worth Minimizer (RWM)

SR 4.3.F.1

Perform an INSTRUMENT FUNCTIONAL TEST of the RWM prior to control rod withdrawal for startup or insertion to reduce power below 20%.

SR 4.3.F.2

Verify the RWM automatic bypass setpoint to be > 20% RTP every 24 months.

SR 4.3.F.3

Verify control rod sequences input to the RWM are in conformance with BPWS prior to declaring RWM OPERABLE following loading of sequence into RWM.

2.1.1 Immediately verify ≥ 12 rods withdrawn,

OR

B 3/4.3 REACTIVITY CONTROL (continued)

B 3/4.3.F Rod Worth Minimizer

BASES

LCO	The RWM is a hardwired system designed to act as a backup to operator control of the rod sequences. Only one channel of the RWM is available and is required to be OPERABLE. Special circumstances provided for in the required ACTION of LCO 3.3.B.1 ACTIONS A and C may necessitate bypassing the RWM to allow continued operation with inoperable control rods, or to allow correction of a control rod pattern not in compliance with the BPWS. The RWM may be bypassed as required by these ACTIONS, but then it must be considered inoperable and the required ACTIONS of this LCO followed.
APPLICABILITY	Compliance with the BPWS, and therefore OPERABILITY of the RWM, is required in the STARTUP and RUN MODES when thermal power is ≤ 20% RTP. When thermal power is > 20% RTP, there is no possible control rod configuration that results in a control rod worth that could exceed the 280 cal/gm fuel damage limit during a CRDA (References 1, 3, and 4). In the HOT SHUTDOWN and COLD SHUTDOWN MODES, all control rods are required to be inserted into the core; therefore, a CRDA cannot occur. Since only a single control rod can be withdrawn from a core cell containing fuel assemblies in the REFUEL MODE, adequate shutdown margin ensures that the consequences of a CRDA are acceptable, i.e., the reactor will remain subcritical.
ACTIONS	A.1, ~~2.1~~ A.2.1.1, A.2.1.2, and 2.2 ~~A.~~ With the RWM inoperable during a reactor startup, the operator is still capable of enforcing the prescribed control rod sequence. However, the overall reliability is reduced because a single operator error can result in violating the control rod sequence. Therefore, control rod movement must be immediately suspended except by scram. Alternatively, startup may continue if a reactor startup with an inoperable RWM was not performed in the last ~~12 months~~ calendar year. ACTION A.2.1 requires verification, by review of plant logs, that a reactor startup with an inoperable RWM was not performed in the last ~~12 months~~. Once ACTION ~~A.2.1~~ A.2.1.1 or A.2.1.2 is satisfactorily completed, control rod withdrawal may proceed provided a double check of compliance with the prescribed rod sequence is performed by a second licensed operator (Reactor Operator or Senior Reactor Operator) or other qualified member of the technical staff (ACTION A.2.2).

≥ 12 control rods are withdrawn, or

.2

B 3/4.3 REACTIVITY CONTROL

BASES

A.2.1.1, A.2.1.2, and A.2.2

ACTIONS (continued)

A.1, ~~2.1, and 2.2~~ (continued)

The RWM may be bypassed under these conditions to allow continued operation. In addition, ACTIONS A.1 and C.1 of LCO 3.3.B.1 may require bypassing the RWM, during which time the RWM must be considered inoperable with ACTION A entered and its required actions taken.

B.1

With the RWM inoperable during a reactor shutdown, the operator is still capable of enforcing the prescribed control rod sequence. ACTION B.1 allows for the RWM function to be performed manually and requires a double check of compliance with the prescribed rod sequence by a second licensed operator (Reactor Operator or Senior Reactor Operator) or other qualified member of the technical staff. The RWM may be bypassed under these conditions to allow the reactor shutdown to continue.

SURVEILLANCE REQUIREMENTS

SR 4.3.F.1

An INSTRUMENT FUNCTIONAL TEST is performed for the RWM to ensure that the entire system will perform the intended function. The INSTRUMENT FUNCTIONAL TEST for the RWM is performed by:

a. performing the RWM computer diagnostic test,

b. verifying the annunciation of the selection errors of at least one out-of-sequence control rod in each distinct RWM group, and

c. verifying the rod block function of an out-of-sequence control rod which is withdrawn no more than three notches.

Performance of the INSTRUMENT FUNCTIONAL TEST prior to the time the RWM is required to be OPERABLE assures the actions of the Reactor Operator are always monitored and blocked when an error could lead to a condition which might cause fuel damage during a CRDA.

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LIMITING CONDITIONS FOR OPERATION

3.14 SPECIAL OPERATIONS (continued)

B. (Not Used)

C. (Not Used)

D. (Not Used)

E. (Not Used)

F. (Not Used)

SURVEILLANCE REQUIREMENTS

4.14 SPECIAL OPERATIONS (continued)

B. (Not Used)

C. (Not Used)

D. (Not Used)

E. (Not Used)

F. (Not Used)

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LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.14 SPECIAL OPERATIONS (continued)	4.14 SPECIAL OPERATIONS (continued)
G. Control Rod Testing - Operating	G. Control Rod Testing - Operating
Specification The requirements of LCO 3.3.H, "Rod Pattern Control," may be suspended to allow performance of reactivity margin demonstrations, control rod scram time testing, control rod friction testing, and the Startup Test Program, provided:	
1. The banked position withdrawal sequence requirements of SR 4.3.F.3 are changed to require the control rod sequence to conform to the specified test sequence, OR	1. Prior to control rod movement, verify control rod sequence input to the RWM is in conformance with the approved control rod sequence for the specified test, OR
2. The RWM is bypassed; the requirements of LCO 3.3.F, "Rod Worth Minimizer," are suspended; and conformance to the approved control rod sequence for the specified test is verified by a second licensed operator or other qualified member of the technical staff.	2. During control rod movement, verify movement of control rods is in compliance with the approved control rod sequence for the specified test by a second licensed operator or other qualified member of the technical staff.
Applicability Run MODE and startup MODE with the requirements of LCO 3.3.H not met.	
Actions Above requirements not met immediately suspend performance of the test and exception to LCO 3.3.H.	

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BASES:

3/4.14.B (Not Used)

3/4.14.C (Not Used)

3/4.14.D (Not Used)

3/4.14.E (Not Used)

3/4.14.F (Not Used)

INSERT NEW PAGE

BASES:

3/4.14.G CONTROL ROD TESTING -- OPERATING

Background

The purpose of this Special Operations LCO is to permit control rod testing, while in Run MODE or Startup MODE, by imposing certain administrative controls. Control rod patterns during startup conditions are controlled by the operator and the rod worth minimizer (RWM) (LCO 3.3.F, " Rod Worth Minimizer"), such that only the specified control rod sequences and relative positions required by LCO 3.3.H, "Rod Pattern Control," are allowed over the operating range from all control rods inserted to the low power setpoint (LPSP) of the RWM. The sequences effectively limit the potential amount and rate of reactivity increase that could occur during a control rod drop accident (CRDA). During these conditions, control rod testing is sometimes required that may result in control rod patterns not in compliance with the prescribed sequences of LCO 3.3.H. These tests include reactivity margin demonstrations, control rod scram time testing, control rod friction testing, and testing performed during the Startup Test Program. This Special Operations LCO provides the necessary exemption to the requirements of LCO 3.3.H and provides additional administrative controls to allow the deviations in such tests from the prescribed sequences in LCO 3.3.H.

Applicable Safety Analyses

The analytical methods and assumptions used in evaluating the CRDA are summarized in References 1 and 2. CRDA analyses assume the reactor operator follows prescribed withdrawal sequences. These sequences define the potential initial conditions for the CRDA analyses. The RWM provides backup to operator control of the withdrawal sequences to ensure the initial conditions of the CRDA analyses are not violated. For special sequences developed for control rod testing, the initial control rod patterns assumed in the safety analysis of References 1 and 2 may not be preserved. Therefore special CRDA analyses are required to demonstrate that these special sequences will not result in unacceptable consequences, should a CRDA occur during the testing. These analyses, performed in accordance with an NRC approved methodology, are dependent on the specific test being performed.

As described in LCO 3.0.7, compliance with Special Operations LCOs is optional, and therefore, no criteria of 10 CFR 50.36(c)(2)(ii) apply. Special Operations LCOs provide flexibility to perform certain operations by appropriately modifying requirements of other LCOs. A discussion of the criteria satisfied for the other LCOs is provided in their respective Bases.

INSERT NEW PAGE

BASES:

3/4.14.G CONTROL ROD TESTING -- OPERATING (continued)

LCO

As described in LCO 3.0.7, compliance with this Special Operations LCO is optional. Control rod testing may be performed in compliance with the prescribed sequences of LCO 3.3.H, and during these tests, no exceptions to the requirements of LCO 3.3.H are necessary. For testing performed with a sequence not in compliance with LCO 3.3.H, the requirements of LCO 3.3.H may be suspended provided additional administrative controls are placed on the test to ensure that the assumptions of the special safety analysis for the test sequence are satisfied. Assurances that the test sequence is followed can be provided by either programming the test sequence into the RWM, with conformance verified as specified in SR 4.3.F.3 and allowing the RWM to monitor control rod withdrawal and provide appropriate control rod blocks if necessary, or by verifying conformance to the approved test sequence by a second licensed operator or other qualified member of the technical staff. These controls are consistent with those normally applied to operation in the startup range as defined in the ACTIONS of LCO 3.3.F, " Rod Worth Minimizer."

Applicability

Control rod testing, while in Run MODE or Startup MODE, with thermal power greater than the LPSP of the RWM, is adequately controlled by the existing LCOs on power distribution limits and control rod block instrumentation without being restricted to prescribed sequences. With thermal power less than or equal to the LPSP of the RWM, the provisions of this Special Operations LCO are necessary to perform special tests that are not in conformance with the prescribed sequences of LCO 3.3.H.

Actions

With the requirements of the LCO not met (e.g., the control rod pattern is not in compliance with the special test sequence, the sequence is improperly loaded in the RWM) the testing is required to be immediately suspended. Upon suspension of the special test, the provisions of LCO 3.3.H are no longer excepted, and appropriate actions are to be taken to restore the control rod sequence to the prescribed sequence of LCO 3.3.H, or to shut down the reactor, if required by LCO 3.3.H.

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BASES:

3/4.14.G CONTROL ROD TESTING -- OPERATING (continued)

Surveillance Requirements (SR)

SR 4.14.G

When the RWM provides conformance to the special test sequence, the test sequence must be verified to be correctly loaded into the RWM prior to control rod movement. This Surveillance demonstrates compliance as would SR 4.3.F.3, thereby demonstrating that the RWM is OPERABLE.

With the special test sequence not programmed into the RWM, a second licensed operator or other qualified member of the technical staff is required to verify conformance with the approved sequence for the test. This verification must be performed during control rod movement to prevent deviations from the specified sequence.

References:

1. NEDE-24011-P-A-US, General Electric Standard Application for Reactor Fuel, Supplement for United States (as amended).

2. Letter from T. Pickens (BWROG) to G.C. Lainas (NRC) "Amendment 17 to General Electric Licensing Topical Report NEDE-24011-P-A," August 15, 1986.