Dominion Nuclear Connecticut, Inc.
Millstone Power Station
Rope Ferry Road
Waterford, CT 06385

Dominion

SEP 26 2001

Docket No. 50-423
B18469

RE: 10 CFR 50.90

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

Millstone Power Station, Unit No. 3
Technical Specification Change Request 3-10-01
Relocation of Technical Specifications Related to
Position Indication System - Shutdown

Pursuant to 10 CFR 50.90, Dominion Nuclear Connecticut, Inc. (DNC), proposes to amend Operating License NPF-49 by incorporating the attached proposed changes into the Millstone Unit No. 3 Technical Specifications. DNC is proposing to relocate Specifications 3.1.3.3, "Position Indication System - Shutdown," and 3.10.5, "Special Test Exception - Position Indication System - Shutdown," to the Technical Requirements Manual (TRM) for Millstone Unit No. 3.

Attachment 1 provides a discussion of the proposed changes and the Safety Summary. Attachment 2 provides the Significant Hazards Consideration. Attachment 3 provides the marked-up version of the appropriate pages of the current Technical Specifications (TS). Attachment 4 provides the retyped pages of the TS.

Environmental Considerations

DNC has evaluated the proposed changes against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.22. DNC has determined that the proposed changes meet the criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and as such, has determined that no irreversible consequences exist in accordance with 10 CFR 50.92(b). This determination is based on the fact that the changes are being proposed as an amendment to a license issued pursuant to 10 CFR 50 to relocate certain TS requirements to the facility's TRM and that the amendment request meets the following specific criteria:

A001

(i) The proposed changes involve no significant hazards consideration.

As demonstrated in Attachment 2, the proposed changes do not involve a significant hazards consideration.

(ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released off site.

The proposed changes will relocate certain TS requirements to the facility's TRM. The proposed changes will not change the design basis of the plant. The proposed changes will not result in an increase in power level, will not increase the production of radioactive waste and byproducts, and will not alter the flowpath or method of disposal of radioactive waste or byproducts. Therefore, the proposed changes will not increase the type and amounts of effluents that may be released off site.

(iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed changes will not result in changes in the configuration of the facility. The proposed changes will only relocate certain TS requirements to the facility's TRM. There will be no changes in the level of controls or methodology used for processing radioactive effluents or the handling of solid radioactive waste. There will be no change to the normal radiation levels within the plant. Therefore, there will be no increase in individual or cumulative occupational radiation exposure resulting from the proposed changes.

Conclusions

The proposed changes do not involve a significant impact on public health and safety (see the Safety Summary provided in Attachment 1), and do not involve a Significant Hazards Consideration pursuant to the provisions of 10 CFR 50.92 (see the Significant Hazards Consideration provided in Attachment 2). In addition, we have concluded the proposed changes are safe.

Site Operations Review Committee and Nuclear Safety Assessment Board

The Site Operations Review Committee and Nuclear Safety Assessment Board have reviewed and concurred with the determinations.

Schedule

We request issuance of this amendment for Millstone Unit No. 3 prior to the start of the next refueling outage, which is currently scheduled for early September of 2002, with the amendment to be implemented within 60 days of issuance.

State Notification

In accordance with 10 CFR 50.91(b), a copy of this License Amendment Request is being provided to the State of Connecticut.

There are no regulatory commitments contained within this letter.

If you should have any questions on the above, please contact Mr. Ravi Joshi at (860) 440-2080.

Very truly yours,

DOMINION NUCLEAR CONNECTICUT, INC.

J. Alan Price, Vice President
Nuclear Technical Services - Millstone

Sworn to and subscribed before me

this 26 day of September, 2001

Donna Lynne Williams
Notary Public

My Commission expires Nov 30, 2001

Attachments (4): Discussion of the Proposed Changes and the Safety Summary
Significant Hazards Consideration
Marked-up Pages
Retyped Pages

cc: H. J. Miller, Region I Administrator
V. Nerses, NRC Senior Project Manager, Millstone Unit No. 3
NRC Senior Resident Inspector, Millstone Unit No. 3

Director
Bureau of Air Management
Monitoring and Radiation Division
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Docket No. 50-423
B18469

Attachment 1

Millstone Power Station, Unit No. 3

Technical Specification Change Request 3-10-01
Relocation of Technical Specifications 3.1.3.3 and 3.10.5
Position Indication Systems - Shutdown
Discussion of the Proposed Changes and Safety Summary

Technical Specification Change Request 3-10-01
Relocation of Technical Specifications 3.1.3.3 and 3.10.5
Position Indication Systems - Shutdown
Discussion of the Proposed Changes and Safety Summary

Introduction

Dominion Nuclear Connecticut, Inc. (DNC), proposes to amend Operating License NPF-49 by incorporating the attached proposed changes into the Millstone Unit No. 3 Technical Specifications (TS). DNC is proposing to relocate Specifications 3.1.3.3, "Position Indication System - Shutdown," and 3.10.5, "Special Test Exception - Position Indication System - Shutdown," to the Technical Requirements Manual (TRM) for Millstone Unit No. 3.

Because Surveillance Requirement (SR) 4.1.3.3 associated with Limiting Condition for Operation (LCO) 3.1.3.3, "Position Indication System - Shutdown," is necessary to meet TS OPERABILITY requirements for the Position Indication System in Modes 1 and 2, the surveillance will be retained, but will be relocated to Specification 3.1.3.2, "Position Indication System - Operating," as SR 4.1.3.2.2. The bases for Specification 3.10.5 will be moved to the Unit 3 TRM.

The Unit 3 TRM includes information which has been relocated from TS or material which has been judged to warrant administrative control. Changes to the TRM, which is maintained as a controlled document, are performed pursuant to the provisions of 10 CFR 50.59. The TRM is referenced by the Millstone Unit No. 3 Final Safety Analysis Report (FSAR).

Description Of Proposed Changes To The Technical Specifications

A) Technical Specification 3.1.3.3, Position Indication System - Shutdown

TS LCO 3.1.3.3 (with the exception of SR 4.1.3.3) will be relocated to the Unit 3 TRM, which is governed by the provisions of 10 CFR 50.59. The surveillance requirement associated with LCO 3.1.3.3, i.e., SR 4.1.3.3 will be renumbered and relocated as SR 4.1.3.2.2 within Specification 3.1.3.2, "Position Indication System - Operating." Existing SR 4.1.3.2 will be renumbered as SR 4.1.3.2.1. Relocation of SR 4.1.3.3 is consistent with the criteria of 10 CFR 50.36c(2)(ii) and with the improved Standard Technical Specifications (STS) for Westinghouse plants, NUREG-1431.[1]

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[1] U.S. Nuclear Regulatory Commission NUREG - 1431, "Standard Technical Specifications Westinghouse Plants," Revision 2 , April 2001.

B) Technical Specification 3.10.5, Special Test Exception - Position Indication System - Shutdown

TS LCO 3.10.5 provides special test exceptions for Specification 3.1.3.3. Once Specification 3.1.3.3 is relocated to the Unit 3 TRM, Specification 3.10.5 will no longer be needed within the Unit 3 TS. Therefore, Specification 3.10.5 and the corresponding bases section are also proposed to be relocated to the Unit 3 TRM.

The text on the corresponding pages will be deleted and replaced with "THIS PAGE INTENTIONALLY LEFT BLANK."

Index Pages

Index pages v, xii and xv will be revised to reflect the relocation of Specifications 3.1.3.3 and 3.10.5.

Technical Specification Bases

The proposed change to the bases of Specification 3.10.5 will delete the text associated with Specification 3.10.5 and replace the section title with words "DELETED." This bases section will be relocated to the Unit 3 TRM.

Safety Summary

Specifications 3.1.3.2, "Position Indication System - Operating" (Modes 1 and 2) and 3.1.3.3, "Position Indication System - Shutdown" (Modes 3, 4 and 5) provide the requirements for the control rod Position Indication System. Specifications 3.1.3.3 and 3.10.5, "Special Test Exception - Position Indication System - Shutdown" (with the exception of SR 4.1.3.3) are proposed to be relocated to the Unit 3 TRM. The control rod Position Indication System provides indication of rod position to the plant operators. This indication is used by the operators to verify the rods are correctly positioned during power operation and to verify that the rods are inserted into the core following a reactor trip. Rod position indication is also used during reactor startup. The requirements on the Position Indication System should only be applicable in Modes 1 and 2, because these are the only modes in which power is generated and the OPERABILITY and alignment of the control rods have the potential to affect the safety of the plant.

In Modes 3, 4 and 5, the OPERABILITY of the control rods has the potential to affect the required shutdown margin, but this effect can be compensated for by an increase in boron concentration of the reactor coolant system. This requirement is covered by other Specifications, such as, 3.1.1, "Boration Control, Shutdown Margin - Modes 3, 4 and 5."

The Westinghouse specifications for the control rod Position Indication System during shutdown, i.e., those requirements contained within Specifications 3.1.3.3, "Position

Indication System - Shutdown" and 3.10.5, "Special Test Exception - Position Indication System - Shutdown" were identified in Table 2, of Appendix B, of a May 9, 1988, letter[2] from Dr. Thomas E. Murley of the NRC to the respective industry owner's groups as LCO's which may be relocated to other licensee-controlled documents.

Relocation of Technical Specifications 3.1.3.3 and 3.10.5

10 CFR 50.36c(2)(ii) contains the requirements to determine the items that must be included within the TS. This regulation provides four (4) criteria that can be used to determine those requirements which must be included within the TS. Items not meeting these criteria can be relocated from the TS to other Licensee controlled documents. A Licensee can then change the relocated requirements, if necessary, in accordance with the provisions of 10 CFR 50.59. This will result in significant reductions in time and expense to modify requirements that have been relocated while not adversely affecting plant safety. The criteria, and an evaluation of the two specifications (i.e., Specifications 3.1.3.3 and 3.10.5), proposed to be relocated to the TRM, against the criteria of 10 CFR 50.36c(2)(ii) is provided below.

Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary (RCPB).

This criterion addresses instrumentation installed to detect excessive reactor coolant system leakage. The control rod Position Indication System is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the RCPB. Therefore, Specifications 3.1.3.3 and 3.10.5 which pertain to the utilization of the control rod Position Indication System during Modes 3, 4 and 5, i.e., shutdown, are not utilized to meet this criteria. The control rod Position Indication System (during shutdown) and hence Specifications 3.1.3.3 and 3.10.5 do not satisfy Criterion 1.

Criterion 2: The process variable, design feature, or operating restriction that is an initial condition of a design basis accident (DBA) or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The purpose of this criterion is to capture those process variables that have initial values assumed in the DBA and transient analyses, and which

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[2] Thomas E. Murley, Director, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, letter to Walter S. Wilgus, Chairman, The B&W Owners Group, "NRC Staff Review of Nuclear Steam Supply System Vendor Owners Groups' Application of the Commission's Interim Policy Statement Criteria to Standard Technical Specifications; Appendix B, Results of the NRC Staff Review Westinghouse Owner's Group Submittal, Retention and Relocation of Specific Technical Specifications," dated May 9, 1988.

are monitored and controlled during power operation. This criterion also includes active design features (e.g., high pressure/low pressure system valves and interlocks) and operating restrictions (pressure/temperature limits) needed to preclude unanalyzed accidents and transients. The control rod Position Indication System is not a design feature that is an initial condition of a DBA or transient analysis, during Modes 3, 4 and 5, that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Specifications 3.1.3.3 and 3.10.5 pertain to the utilization of the control rod Position Indication System only during Modes 3, 4 and 5, i.e., shutdown and are not utilized to meet this criteria. The control rod Position Indication System (during shutdown) and hence Specifications 3.1.3.3 and 3.10.5 do not satisfy Criterion 2.

Criterion 3: A Structure, System and Component (SSC) that is a part of the primary success path and which functions or actuates to mitigate a DBA or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The purpose of this criterion is to capture only those SSC's that are part of the primary success path of the safety analysis. The SSC's are those combinations and sequences of equipment needed to operate, so that the plant response to the DBAs and transients limits the consequences of these events to within the appropriate acceptance criteria. Also included are support and actuation systems that are necessary for items in the primary success path to successfully function.

The control rod Position Indication System is a system which provides information to the operator which could be used to initiate operator action. However, no DBA or transient assumes operator action to manually trip the reactor, or to take some alternative action if an automatic reactor trip does not occur. The control rod Position Indication System is not a system that is part of the primary success path and which functions or actuates to mitigate a DBA or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Specifications 3.1.3.3 and 3.10.5 do not satisfy Criterion 3.

Criterion 4: A SSC which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The purpose of this criterion is to capture only those SSCs that operating experience or probabilistic risk assessment has shown to be significant to public health and safety. Requirements being relocated do not contain constraints of prime importance in limiting the likelihood or severity of the accident sequences that are commonly found to dominate risk.

> The limitations covered by Specifications 3.1.3.3 and 3.10.5 have not been shown to be risk significant to public health and safety by either operating experience or probabilistic safety assessment. Specifications 3.1.3.3 and 3.10.5 do not satisfy Criterion 4.

The requirements contained in Specifications 3.1.3.3 and 3.10.5 for the control rod Position Indication System during shutdown do not meet the criteria of 10 CFR 50.36(c)(2)(ii) for items that must be included within the TS. Relocation of the requirements of these specifications to the TRM will not result in any new approaches to plant operation and will not adversely affect any accident mitigation equipment. The plant response to DBA or transient will not change. Additionally, the requirements corresponding to those for the control rod Position Indication System during shutdown, i.e., those within Millstone Unit No. 3 Technical Specifications 3.1.3.3 and 3.10.5, were identified in Table 2, of Appendix B, of a May 9, 1988, NRC letter[(2)] as LCO's which may be relocated to other licensee-controlled documents. Therefore, relocating these requirements from the Millstone Unit No. 3 Technical Specifications to a licensee controlled document (the TRM) is safe, and will not adversely affect public health and safety.

Attachment 2

Millstone Power Station, Unit No. 3

Technical Specification Change Request 3-10-01
Relocation of Technical Specifications 3.1.3.3 and 3.10.5
Position Indication System - Shutdown
Significant Hazards Consideration

Technical Specification Change Request 3-10-01
Relocation of Technical Specifications 3.1.3.3 and 3.10.5
Position Indication System - Shutdown
Significant Hazards Consideration

Description of License Amendment Request

Dominion Nuclear Connecticut, Inc. (DNC), proposes to amend Operating License NPF-49 by making the following changes to the Millstone Unit No. 3 Technical Specifications (TS). DNC is proposing to relocate Specifications 3.1.3.3, "Position Indication System - Shutdown," (with exception of Surveillance Requirement 4.1.3.3) and 3.10.5, "Special Test Exception - Position Indication System - Shutdown," to the Technical Requirements Manual (TRM) for Millstone Unit No. 3. Surveillance Requirement (SR) 4.1.3.3 will be moved to Specification 3.1.3.2, "Position Indication System - Operating."

Basis for No Significant Hazards Consideration

In accordance with 10 CFR 50.92, DNC has reviewed the proposed changes and has concluded that they do not involve a Significant Hazards Consideration (SHC). The basis for this conclusion is that the three criteria of 10 CFR 50.92(c) are not compromised. The proposed changes do not involve an SHC because the changes would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated.

   The proposed change to relocate the requirements contained in Specifications 3.1.3.3 and 3.10.5 for the control rod Position Indication System during shutdown (Modes 3, 4 and 5), with the exception of SR 4.1.3.3, from the TS to the TRM will have no adverse effect on plant operation, or the availability or operation of any accident mitigation equipment. Relocation of these requirements to the TRM will not result in any new approaches to plant operation and will not adversely affect any accident mitigation equipment. Plant response to a design basis accident (DBA) or transient will not change.

   Therefore, the relocation of the requirements associated with the position indication system during Modes 3, 4, and 5 (with the exception of SR 4.1.3.3), will not adversely impact an accident initiator and cannot cause an accident. These changes will not increase the probability or consequences of an accident previously evaluated.

2. Create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed change to relocate the requirements for the control rod Position Indication System during shutdown (Modes 3, 4 and 5), contained in Specifications 3.1.3.3 and 3.10.5 from the TS to the TRM (with the exception of SR 4.1.3.3 which is being retained within the TS), will not alter the plant configuration (no new or different type of equipment will be installed) or require any new or unusual operator actions. These changes do not alter the way any system, structure, or component functions and do not alter the manner in which the plant is operated. The proposed changes do not introduce any new failure modes. Therefore, the proposed changes will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Involve a significant reduction in a margin of safety.

The proposed technical specification changes will relocate the requirements from the TS to the TRM. Any future changes to the relocated requirements will be in accordance with 10 CFR 50.59. The proposed changes will have no adverse effect on plant operation, or the availability or operation of any accident mitigation equipment. The proposed changes do not affect the acceptance criteria for a DBA. The plant response to the DBAs will not change. Therefore, there will be no reduction in a margin of safety.

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Attachment 3

Millstone Power Station, Unit No. 3

Technical Specification Change Request 3-10-01
Marked-up Pages

Technical Specification Change Request 3-10-01

Marked-up Pages

A change to the following Technical Specification page has been proposed.

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Index	---	xii, Amendment 189
Index	---	xv, Amendment 192
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3.10.5	Special Test Exception - Position Indication System - Shutdown	3/4 10-6, Amendment 117
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REACTIVITY CONTROL SYSTEMS

POSITION INDICATION SYSTEMS - OPERATING

LIMITING CONDITION FOR OPERATION

3.1.3.2 The Digital Rod Position Indication System and the Demand Position Indication System shall be OPERABLE and capable of determining the control rod positions within ±12 steps.

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With a maximum of one digital rod position indicator per bank inoperable:

   1. Determine the position of the nonindicating rod(s) indirectly by the movable incore detectors at least once per 8 hours and immediately after any motion of the nonindicating rod which exceeds 24 steps in one direction since the last determination of the rod's position, or

   2. With four loops operating, reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 8 hours, or

   3. With three loops operating, reduce THERMAL POWER to less than 32% of RATED THERMAL POWER within 8 hours.

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

   1. Verify that all digital 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 a maximum of 12 steps of each other at least once per 8 hours, or

   2. With four loops operating, reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 8 hours, or

   3. With three loops operating, reduce THERMAL POWER to less than 32% of RATED THERMAL POWER within 8 hours.

SURVEILLANCE REQUIREMENTS

4.1.3.2.1 Each digital rod position indicator shall be determined to be OPERABLE by verifying that the Demand Position Indication System and the Digital Rod Position Indication System agree within 12 steps 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 Digital Rod Position Indication System at least once per 4 hours.

4.1.3.2.2 Insert "A"

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INSERT 'A' - Page 3/4 1-23

4.1.3.2.2 Each of the above required digital rod position indicator(s) shall be determined to be OPERABLE by verifying that the digital rod position indicators agree with the demand position indicators within 12 steps when exercised over the full-range of rod travel at least once each REFUELING INTERVAL.

REACTIVITY CONTROL SYSTEMS

POSITION INDICATION SYSTEM - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.1.3.3 One digital rod position indicator (excluding demand position indication) shall be OPERABLE and capable of determining the control rod position within ±12 steps for each shutdown or control rod not fully inserted.

APPLICABILITY: MODES 3* **, 4* **, and 5* **.

ACTION:

With less than the above required position indicator(s) OPERABLE, immediately open the Reactor Trip System breakers.

SURVEILLANCE REQUIREMENTS

4.1.3.3 Each of the above required digital rod position indicator(s) shall be determined to be OPERABLE by verifying that the digital rod position indicators agree with the demand position indicators within 12 steps when exercised over the full-range of rod travel at least once each REFUELING INTERVAL.

Deleted

*With the Reactor Trip System breakers in the closed position.

**See Special Test Exceptions Specification 3.10.5.

SPECIAL TEST EXCEPTIONS

3/4.10.5 POSITION INDICATION SYSTEM - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.10.5 The limitations of Specification 3.1.3.3 may be suspended during the performance of control rod drop time measurements provided;

a. The rod position indicator is OPERABLE during the withdrawal of the rods,* and

b. The SHUTDOWN MARGIN requirement of Section 3.1.1.1.2 shall be met without credit for withdrawn control rods.

APPLICABILITY: MODES 3, 4, and 5 during performance of rod drop time measurements.

ACTION:

With the Position Indication Systems inoperable immediately open the Reactor trip breakers.

SURVEILLANCE REQUIREMENTS

4.10.5 The above required Position Indication Systems shall be determined to be OPERABLE within 24 hours prior to the start of and at least once per 24 hours thereafter during rod drop time measurements by verifying the Demand Position Indication System and the Digital Rod Position Indication System agree:

a. Within 12 steps when the rods are stationary, and

b. Within 24 steps during rod motion.

*This requirement is not applicable during the initial calibration of the Digital Rod Position Indication System provided K_{eff} is maintained less than or equal to 0.95.

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FOR INFO ONLY

October 5, 199?

BORATION SYSTEMS (Continued)

The OPERABILITY of one Boron Injection System during REFUELING ensures that this system is available for reactivity control while in MODE 6.

3/4.1.3 MOVABLE CONTROL ASSEMBLIES

The specifications of this section ensure that: (1) acceptable power distribution limits are maintained, (2) the minimum SHUTDOWN MARGIN is maintained, and (3) the potential effects of rod misalignment on associated accident analyses are limited. OPERABILITY of the control rod position indicators is required to determine control rod positions and thereby ensure compliance with the control

MOVABLE CONTROL ASSEMBLIES (Continued)

rod alignment and insertion limits. Verification that the Digital Rod Position Indicator agrees with the demanded position within ±12 steps at 24, 48, 120, and fully withdrawn position for the Control Banks and 18, 210, and fully withdrawn position for the Shutdown Banks provides assurances that the Digital Rod Position Indicator is operating correctly over the full range of indication. Since the Digital Rod Position Indication System does not indicate the actual shutdown rod position between 18 steps and 210 steps, only points in the indicated ranges are picked for verification of agreement with demanded position.

The ACTION statements which permit limited variations from the basic requirements are accompanied by additional restrictions which ensure that the original design criteria are met. Misalignment of a rod requires measurement of peaking factors and a restriction in THERMAL POWER. These restrictions provide assurance of fuel rod integrity during continued operation. In addition, those safety analyses affected by a misaligned rod are reevaluated to confirm that the results remain valid during future operation.

The maximum rod drop time restriction is consistent with the assumed rod drop time used in the safety analyses. Measurement with T_{avg} greater than or equal to 551°F and with all reactor coolant pumps operating ensures that the measured drop times will be representative of insertion times experienced during a Reactor trip at operating conditions.

Control rod positions and OPERABILITY of the rod position indicators are required to be verified on a nominal basis of once per 12 hours with more frequent verifications required if an automatic monitoring channel is inoperable. These verification frequencies are adequate for assuring that the applicable LCOs are satisfied.

For Specification 3.1.3.1 ACTIONS b. and c., it is incumbent upon the plant to verify the trippability of the inoperable control rod(s). Trippability is defined in Attachment C to a letter dated December 21, 1984, from E. P. Rahe (Westinghouse) to C. O. Thomas (NRC). This may be by verification of a control system failure, usually electrical in nature, or that the failure is associated with the control rod stepping mechanism. In the event the plant is unable to verify the rod(s) trippability, it must be assumed to be untrippable and thus falls under the requirements of ACTION a. Assuming a controlled shutdown from 100% RATED THERMAL POWER, this allows approximately 4 hours for this verification.

3/4.10 SPECIAL TEST EXCEPTIONS

BASES

3/4.10.1 SHUTDOWN MARGIN

This special test exception provides that a minimum amount of control rod worth is immediately available for reactivity control when tests are performed for control rod worth measurement. This special test exception is required to permit the periodic verification of the actual versus predicted core reactivity condition occurring as a result of fuel burnup or fuel cycling operations.

3/4.10.2 GROUP HEIGHT, INSERTION, AND POWER DISTRIBUTION LIMITS

This special test exception permits individual control rods to be positioned outside of their normal group heights and insertion limits during the performance of such PHYSICS TESTS as those required to: (1) measure control rod worth, and (2) determine the reactor stability index and damping factor under xenon oscillation conditions.

3/4.10.3 PHYSICS TESTS

This special test exception permits PHYSICS TESTS to be performed at less than or equal to 5% of RATED THERMAL POWER with the RCS T_{avg} slightly lower than normally allowed so that the fundamental nuclear characteristics of the core and related instrumentation can be verified. In order for various characteristics to be accurately measured, it is at times necessary to operate outside the normal restrictions of these Technical Specifications. For instance, to measure the moderator temperature coefficient at BOL, it is necessary to position the various control rods at heights which may not normally be allowed by Specification 3.1.3.6 which in turn may cause the RCS T_{avg} to fall slightly below the minimum temperature of Specification 3.1.1.4.

3/4.10.4 REACTOR COOLANT LOOPS

This special test exception permits reactor criticality under no flow conditions and is required to perform certain STARTUP and PHYSICS TESTS while at low THERMAL POWER levels.

3/4.10.5 POSITION INDICATION SYSTEM - SHUTDOWN DELETED

This special test exception permits the Position Indication Systems to be inoperable during rod drop time measurements. The exception is required since the data necessary to determine the rod drop times are derived from the induced voltage in the position indicator coils as the rod is dropped. This induced voltage is small compared to the normal voltage and, therefore, cannot be observed if the Position Indication Systems remain energized. Power is removed from the DRPI data cabinets just prior to rod drop testing. The Rod Position Indication System is not OPERABLE in this condition.

3/4.10 SPECIAL TEST EXCEPTIONS

BASES (continued)

The Rod Position Indication System will be out of service for a short period of time when the power is removed from the DRPI cabinets until the reactor trip breakers are opened. Technical Specification 3.1.3.3 requires the reactor trip breakers to be open when one digital rod position indicator is not available for each shutdown or control rod not fully inserted in Mode 3, 4, or 5. The suspended requirements of Technical Specification 3.1.3.3 will be fully met since the rod drop test is initiated by opening the reactor trip breakers.

The shutdown margin is not allowed to credit withdrawn control rods during control rod drop time measurements. This ensures that K_{eff} is maintained far below critical since the reactivity state of the core has not been evaluated yet during the startup physics tests.

The footnote is to allow the rod position indicator to be calibrated without entering applicable ACTION statements provided K_{eff} is maintained less than or equal to 0.95 during the calibration.

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B18469

Attachment 4

Millstone Power Station, Unit No. 3

Technical Specification Change Request 3-10-01
Retyped Pages

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POSITION INDICATION SYSTEMS - OPERATING

LIMITING CONDITION FOR OPERATION

3.1.3.2 The Digital Rod Position Indication System and the Demand Position Indication System shall be OPERABLE and capable of determining the control rod positions within ±12 steps.

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With a maximum of one digital rod position indicator per bank inoperable:

   1. Determine the position of the nonindicating rod(s) indirectly by the movable incore detectors at least once per 8 hours and immediately after any motion of the nonindicating rod which exceeds 24 steps in one direction since the last determination of the rod's position, or

   2. With four loops operating, reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 8 hours, or

   3. With three loops operating, reduce THERMAL POWER to less than 32% of RATED THERMAL POWER within 8 hours.

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

   1. Verify that all digital 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 a maximum of 12 steps of each other at least once per 8 hours, or

   2. With four loops operating, reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 8 hours, or

   3. With three loops operating, reduce THERMAL POWER to less than 32% of RATED THERMAL POWER within 8 hours.

SURVEILLANCE REQUIREMENTS

4.1.3.2.1 Each digital rod position indicator shall be determined to be OPERABLE by verifying that the Demand Position Indication System and the Digital Rod Position Indication System agree within 12 steps 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 Digital Rod Position Indication System at least once per 4 hours.

4.1.3.2.2 Each of the above required digital rod position indicator(s) shall be determined to be OPERABLE by verifying that the digital rod position indicators agree with the demand position indicators within 12 steps when exercised over the full-range of rod travel at least once each REFUELING INTERVAL.

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BASES

3/4.10.1 SHUTDOWN MARGIN

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3/4.10.5 DELETED

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